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MEDICAL REFORM.

AN

ORATION

DELIVERED AT THE LAST ANNIVERSARY MEETING OF THE BRITISH MEDICAL ASSOCIATION;

By WILLIAM FARR, *Esq.*

MR. PRESIDENT AND GENTLEMEN:

You have not instituted this discourse, or this Anniversary, to celebrate the achievements of the Dead. Harvey and Hunter were great men, but the science which they cultivated languishes, and the profession which they adorned labours under grievances that ought no longer to exist. You do not believe that the soil of England is exhausted; and, instead of calling your brethren together to lament the loss of greatness, to raise costly monuments, or to offer incense at tombs, you seek to remove ruins, to open the country, to clear away weeds that have grown rank in its richness, and to give the cultivators freedom; for by your faith in the present and the future you know that the seeds of genius still exist, and only await the showers, sunshine, and life-giving breath of liberal institutions, to spring up into life, and to bear abundant fruits.

I see amongst you, and in the list of your members, representatives of all the ranks into which the medical profession has been divided; graduates and licentiates of the several universities, companies, colleges; members of town districts and members of country districts, natives of the different divisions of the kingdom. Some of you have devoted your lives to practice, and are only known by the benefits which you have conferred upon your patients; some of you have distinguished yourselves by philosophical researches, and the successful investigation of the animal kingdom; some as teachers; some by ingenious physiological experiments and happy generalisations of the phenomena of life have thrown a new light upon the nervous system; others have applied the exact methods of chemistry to the study of disease, or have observed morbid phenomena with a care and accuracy which would do honour to the French pathologists. In the field of operative surgery some of you stand unrivalled; while others have addressed the public, and have rendered the doctrines of health popular philosophy. In your ranks is the creator of the liberal medical press. But it has been made a matter of reproach that none of the leading members of the medical corporations are at your head; that your Council includes general practitioners; that you have elected an able, indefatigable person, but a general practitioner, for your President; and that consequently questions in which the interests and rights of 17,000 practitioners are involved, have occupied a great deal of your attention.

When the Poor-Law Amendment Act was passed the Commissioners were misled; the old medical attendants of parishes were unceremoniously discarded; and the degrading tender system was very extensively applied; the afflicted poor were sold to the highest bidder, at a price which would not cover the expence of efficient remedies; ignorant, unscrupulous men were, in some instances, introduced into peaceful neighbourhoods; and the medical districts were made so extensive, that the helpless victims of disease were, in many instances, virtually deprived of medical attendance. The interests of general practitioners, and the just claims of the sick poor throughout the kingdom, appeared about to be sacrificed, when you interposed; and, in conjunction with the Poor-Law Committee of the Provincial Association, established the true facts of the case, to the satisfaction of a Committee of the House of Commons, and, I may add, to the satisfaction of the Poor-Law Commissioners, who, in their recent minute, have expressed an intention to render medical attendance upon the poor as efficient as it can be made under actual circumstances. Much misapprehension prevailed. In removing it you spared neither time, labour, nor money, for

you felt that the question was of vital importance to the poor, to the medical profession, and to the nation.

When a person is suddenly deprived of life by violence, or by disease, an inquest is held upon the body. The laws require that the cause of death should be investigated. The electors are at liberty to choose any person whom they may deem qualified to fill the office of Coroner. The evidence as to the cause of death can only be elicited and sifted, in a great number of instances, by a Coroner who has received a medical education; and when a vacancy lately occurred in Middlesex, you called upon Mr. Wakley to offer himself as a candidate, under the conviction that the interests of justice and the character of conscientious practitioners would be best secured by the election of a medical Coroner. The freeholders of Middlesex adopted your view, and Mr. Wakley was returned by an overwhelming majority. The public have had no reason to regret the election of a medical Coroner, and the example has been followed in other counties.*

You have directed your attention to many important subjects, and have brought several grievances under the notice of both houses of parliament. But Medical Reform —the capital question—the corner-stone of the British Medical Association—has been laboured with ceaseless assiduity. More than 17,000 members are excluded from all power in the medical corporations. They are deprived of large sums of money by self-elective and irresponsible councils; unjust distinctions are maintained; degrees, titles, and licences are conferred upon no uniform principle; and notwithstanding the companies, which profess to repress quackery and unlicensed practitioners, there never was a period when a greater number of lives were sacrificed by patent medicines and by ignorant empirics. You have petitioned parliament for the removal of these abuses by an efficient measure of Medical Reform; and by a deputation which waited upon Lord John Russell, you brought our grievances and claims of redress fairly under the notice of her Majesty's government.

Upon all these occasions, when you were struggling for the just rights of the whole body of the profession, without distinction, you were left alone; or, as it has been expressed, the heads of the corporations upon all these various occasions "fought shy" of the British Medical Association. The officers of the corporations used no exertions and expended no money in collecting evidence relative to medical attendance upon the poor; the public has not to thank them for medical coroners; they have made no efforts to organise the isolated members of the profession, to restore their rights, or to place the medical institutions in harmony with the free consti-

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* The practice of the Coroners' Court has descended from a barbarous age, when the police of the country was imperfect, and when medical jurisprudence was entirely unknown. This will scarcely account for its inefficiency, or for the ignorance which prevails in regard to the utility and the real objects of the inquest. It is imagined by some that the detection of crime is the sole office of the Coroners' Court. Nothing can be more erroneous. This can only be considered accessory to the greater purpose of preventing crime, unjust suspicions, and public insecurity. The inquest should be conducted, so as to impress the criminal, in the hour of temptation and of crime, with the certainty of discovery and punishment; and every individual in the Coroner's jurisdiction should rest convinced that his life cannot be assailed with impunity by assassination, insidious poison, or neglect. This end can only be attained by the present system of registration, in which the cause of *every death* is demanded; and by extending the Coroner's Inquest until it include all deaths, which bear any obvious resemblance to violent deaths, or deaths by external causes; whether adventitious circumstances have or have not given rise to *suspicions*. The discovery of murder should not depend upon the accidental presence of a curious, an intelligent, a suspicious, or an interested witness. The inquest is now restricted almost exclusively to cases of mechanical and chemical injury, and to cases of sudden death. It appears to be unnecessary in some accidents, and it should be extended to a numerous class of cases which do not fall under any definition of sudden death. There are slow poisons; and slow disease may be induced, or a violent but protracted death may be caused in a great variety of ways. Inquests should be held upon lunatics, under confinement, as well as upon prisoners in jails; in other instances, the cause of death should be investigated, and *post mortem* examinations should be instituted in half, if not in all the inquests, in order to render this important department of medical police efficient. It must therefore be considered a fortunate circumstance that the Middlesex magistrates have called attention to the increase of inquests in the county, as it will give Mr. Wakley an opportunity of enlightening public opinion upon this important subject. Mr. Wakley has been censured for not directing more *post mortem* examinations, but it appears that he only acted with justifiable caution and prudence, by holding less inquests, and putting the county to less expense than Mr. Stirling, or Mr. Baker, as he thus escaped an imputation, which would have impaired the usefulness of Medical Coroners, and might have indefinitely retarded the reform of the Coroner's office.

tution of the country. In your movements onwards to accomplish these great and useful purposes, they have not placed themselves at your head; they have not been with, but against you; it is for others to decide whether their absence reflects dishonour upon the British Medical Association, or upon the narrow corporations, which stifle every generous aspiration of our nature.

In approaching Medical Reform there are two things to be considered,—namely, the progress of the science of medicine, and of the means of its practical application to the wants of society. The science of medicine is the science of human health; it comprises a knowledge of the structure, functions, and history of the organisation, and a knowledge of the diseases to which it is subject, as well as of the influences of the atmosphere, the earth, the food, and the remedies which have been supplied by nature or by art. Medical science averts disease, calms sufferings, prolongs existence. Mankind agree in considering it the oracle of life; in sickness and anguish they believe in its resources, and only bow the head, satisfied in death, when it abandons hope. The members of the medical profession are the agents by which the principles of medical science are applied practically, and brought home, in the hour of need, to individuals and to families. Now, who will deny, that so long as sickness prevails, and death threatens, and man exists, the office of physician must remain of insurpassable importance; and that medical education, the examinations to which candidates are bound to submit, the medical police of the country, and the construction of the medical institutions, should command the attention of a wise national legislature, which, like the legislators of antiquity, deems the physical perfection of the people the sole basis of their moral and intellectual greatness?

The proposition is incontrovertible, that skilful medical advice should be placed within the reach of every member of the community, and that the sanatory institutions should realise this object. Some inconsiderate writers upon political economy have, however, undertaken to affirm that medicine is of little use; and that it is repugnant to the doctrines of population to admit that life can be saved or ultimately prolonged by art. M. Quetelet, in his work "Upon Man," has the following passage:—"As regards medicine, it may shut some of the doors which lead to the grave, but it will at the same time throw others wider open, for it can only increase the list of the living by making the supernumerary population live at the expense of society. Æsculapius himself could not by his art confer immortality upon the one-half of mankind, without condemning them to improduction, or doubling the mortality of the other half." If this be true, the sooner medicine is subverted the better; and any endeavours to advance that science, or to reform the institutions of its administration, are idle and injurious; for if we do no good, it will scarcely be disputed that we may do harm, and that poison has power to kill; although, according to these reasoners, violent death, epidemics, or the destruction of life in any form, are no great evils, as the momentary loss is soon supplied, and the population is always kept up to the level of subsistence. The doctrine, followed to its consequences, has a tendency to obliterate that respect for human life which is the religion of nature, and casts ineffable ridicule upon the criminal law, the courts of justice, and all the complex safeguards which wisdom and experience have erected to secure personal safety. M. Quetelet is an amiable member of society; but this creed may be muttered by a murderer—by an unnatural mother over her strangled child—by a parricide over the grave of his father. Need I say, it cannot be true. It is a perversion and a misapplication of the doctrines of population, which Malthus had the merit of discovering; and you will permit me, in a few words, to show its fallacy, as statesmen may be silently induced to plunge the country into war, to overlook the public health, or to neglect the sick poor, under the colour that it is a desideratum to get rid, in any way, of a superfluous population.

Down to the time of Malthus, it was generally believed that the population was decreasing; and that it was the duty of the state to encourage marriage, the legitimate channel of procreation. It was the age of bounties; and a great variety of temptations were held out to induce the poor to marry in early life. "Increase, multiply, and replenish the earth," was a text constantly in the mouths of the clergy, whether of Hanover-square or of the remote hamlet; and their zeal was sanctified by the desire to see the numbers of the faithful augmented; so that, unlike the priests of Peru, who discourage vaccination because it diminishes the burial fees, they turned the current in a more legitimate direction, and encouraged marriages and baptisms. Mr. Malthus, a clergyman of the church of England, and the professor of political economy in the East India College, undertook to show that encouragements to early marriage are injurious; that nature has taken better care of the species than of the individual; that bounties are quite unnecessary; and that the population can only be increased by increasing the means of subsistence. In his Essay, he examined the population of the different countries of the world; showed that the density of the inhabitants is proportional to the fertility and produce of the soil; and laid down the law, that the population increases in a geometrical progres-

sion, while the means of subsistence can only increase in an arithmetical progression. "If," says this distinguished writer, "we all marry at puberty, and yet still continue our exertions to *impede the operations of nature*, we may rest assured that all our efforts will be vain. Nature will not nor cannot be defeated in her purposes. The necessary mortality must come in some form or other; and the extirpation of one disease will only be the signal for the birth of another perhaps more fatal."* The extirpation of small-pox, it was said, would not augment the population.

To understand the argument, it must be recollected that—*the population is increased by increasing the mean duration of life, as well as by increasing the number of births.* For instance: the population is 2,500, the annual births 100, the annual deaths 100, the mean duration of life is 25 years; raise the births to 200, let the mean duration of life remain the same, and the population will rise to 5,000, and there remain stationary; or let the annual births remain 100, raise the mean duration of life from 25 to 50 years, and the 2,500 will become 5,000. With this statement before you, does it follow that, where the mean duration of life is only 25 years, any attempt to prolong life to a mean age of 50 or of 70 years will be entirely futile? Does it follow that the apparent success of vaccination, and of the other appliances of medical art, is delusive? It does not. For if the population is limited by the subsistence, conversely the subsistence is limited by the numbers, industry, and intelligence of the population. The pseudo-economists point to tracts of country which remain desert, because they are deficient in the elements of subsistence; but are there not other tracts of land desert, where the elements of subsistence are abundant, and only await the hand of industry to cover them with intelligent millions? What is the human body? Three-fourths of it is water, the rest air, carbon, and a few salts. Food consists of the same substances, and is one hundred millionth of the elements of our constitution organized? Who can set a limit to the progress of human discovery, in the creation of food—in the conversion of the elements of organisation into organic forms? With vast regions of the earth uncultivated, the excessive dread of over-population is scarcely intelligible. The population of England, in the year 1066, has been estimated at 2,000,000; it was 8,872,980, in 1801; and it is remarkable that in the intervening period, when the land was thinly peopled, when medical art did not "impede the operations of nature," and when considerable numbers of both sexes had taken vows of chastity, famine and plagues, the great positive checks to population, were of frequent occurrence. Entries like the following I have met with, not once or twice, but 44 times in the 327 years, 1066-1392, when the average population did not probably exceed 3,000,000:—"The common people (vulgus pauperum) perished every where for want of food; and after famine, the fiercest pestilence followed in the form of an acute fever, which destroyed such numbers, that at last scarcely any were left to administer to the sick. The customary funeral ceremonies ceased. In many places large ditches were dug, in which the dead were thrown."* This was in the year 1196. The population of England has increased in geometrical progression for at least 1,000 years, and it now amounts to 16,000,000, yet the people do not perish by thousands for want of subsistence, nor are large ditches dug for their dead bodies, cast into the earth without the decencies of mourning, or the ceremonies of religion. Is not the conclusion irresistible then, that the *means of subsistence*, as well as the population, have increased in a *geometrical progression?*

The principle that subsistence increases in an arithmetical ratio is not a direct deduction from facts. Mr. Malthus offers no proof that subsistence does not now increase in a geometrical ratio, or that it may not increase in a geometrical ratio for centuries; he demonstrates only that this ratio cannot be maintained to all eternity; which might make us uncomfortable if the earth were to come to an end.

Since 1801, the population of England has increased at the rate of 1½ per cent. every year: the population of the United Kingdom was nearly 16,229,000, in 1801; it is now about 27,218,000. At the present rate it will double in 51 years, and amount to 32,438,000, in 1852. The population of France has not increased so fast; the rate is ½ (.6) per cent. annually; the population, in 1801, was about 28,000,000, and is now 34,154,000. The population of France, in 1801, was to the population of this kingdom as 167 to 100; it is now only in the proportion of 126 to 100. Then the increase of the English race has led to its diffusion over other lands. In 1800, the free population of the United States amounted to 4,412,884; it is now 14.128,000; besides the population of Canada and the other British colonies. The rapid augmentation of the numerical strength of the British nation, compared with the other great European powers, and the existence of millions of the English race in America, are to be ascribed to that baneful principle, the increase of the people in a geometrical ratio, which is due in part to the diminished mortality, and in part to the medical profession, who are willing to be held responsible

* Essay, vol. 2, pp. 301-2.

* See Macculloch's Stat. of the Brit. Empire; Art. Vital Statistics.

for a share in the calamity, and who, with all due deference to M. Quetelet, if they shut one door to open another, take care to shut the wider, to open the narrower portals of mortality.

Assume that the population must remain stationary, that subsistence has attained its ultimate limit, and it does not follow that the mortality is not to be reduced. To take the example already adduced, with a slight modification:—5,000 can find subsistence, and no more; the annual births and deaths are equal=200; the mean duration of life is 25 years. According to Mr. Malthus, the mean duration of life may be increased to 50 years, by reducing the annual births to 100; he would begin there; you prefer beginning at the other end, and endeavour to reduce the *deaths* to 100; the latter attempt is the more rational, and the more certain, for it cannot be admitted that the reduction of the births would invariably be followed by a reduction of the deaths.

The annual mortality of London, in the early part of the 17th century, appears to have been 7 per cent.; the plague ceased, and another floodgate, in the language of M. Quetelet, was opened, namely, small-pox; but the mortality fell to 5 per cent. in the 18th century. Small-pox partially disappeared at the bidding of Jenner, and it is believed that measles and some other diseases increased, but the mortality of the metropolis is now not 3 per cent annually! The mean duration of life in parts of the metropolis is now perhaps not more than 25 years, while in other places it is 50 years; and are you to be told that you must not attempt to reduce the dreadful mortality of Whitechapel, Shoreditch, and St. Giles's, lest the population should increase too fast? or that after your former triumphs, you will now necessarily be unsuccessful?

Macculloch, and the more eminent economists, while they insist that the poor should not be tempted into early imprudent marriages, by parish bounties, guard against the inference that the mortality cannot be diminished by art. They merely add, that, in that case, the marriages and births must be proportionately diminished; which might be admitted without breaking the force of this argument. Even M. Quetelet finds himself constrained to say, after the contradictory passage which has been quoted:—"It would, nevertheless, be to overlook the immense services which medicine has rendered humanity, to deny that it has succeeded in prolonging the mean duration of life!"

Imagine for a moment, all the medical knowledge which we have inherited, or acquired, to be forgotten; and what would be the condition of the people of England? Dislocations would remain unreduced, fractures disunited, wounds unhealed, calculi uncrushed, hæmorrhages unsuppressed; mothers would die undelivered of their offspring; inflammations would run their course, and destroy the vital organs; small-pox would furrow the countenance, or seal the doom of unnumbered victims; pain would never be assuaged. This state of things could not long continue—men would resort to endless expedients; and the history of medicine proves that they would make a thousand cruel experiments in the hopeless search after relief. What poisons have they not drunk to the dregs; what tortures have they not endured? Is it necessary, then, to insist upon the advantages of a sound medical doctrine to the community, upon the value of medical science, upon the utility of the medical profession, or upon the importance of Medical Reform?

In history, many national disasters are recorded, which may be traced to violations of the laws of health. Athens, the first state of Greece, was paralysed at the commencement of the Peloponesian war by the plague, which was introduced or aggravated by the leader of the people, Pericles. The plague had been hovering around the shores of the Mediterranean, in Ethiopia, Egypt, and the Persian empire, when Sparta and its allies approached Attica. Upon the advice of Pericles, the ardent Athenians, who lived in country houses scattered over Attica, instead of fighting the enemy in the open field, retired within the walls of Athens, where they were crowded in ill-constructed, ill-ventilated dwellings, or lodged in caves and miserable huts. The plague, as might have been foreseen, swooped upon the city, carried off the flower of the citizens, and shattered their armies. Athens never recovered this stroke in the war; her most illustrious chiefs fell; Pericles placed the funeral wreath upon the grave of his last legitimate son, and perished a victim of his ill-judged policy. The depopulation of the cities of England in the middle ages—the direct result of their ill-construction—retarded the progress of civilisation in this country. Several military expeditions have failed—for instance, that to Walcheren; and a fourth of the strength of our armies has remained disabled in recent campaigns, through ignorance of the simple laws of hygiology. A considerable amount of the pauperism which pervades the population may be traced to sickness—the result of a neglect of medical police, as its proximate cause.

I cannot attempt to sum up the benefits which medical science has conferred upon this country. Under its auspices, the health of the army has been improved; the navy is no longer decimated by scurvy, dysentery, and fever; ships sail round the world, or penetrate the icy zones with the loss of fewer lives than formerly perished in the channel; scientific expeditions have been

rendered practicable; and Captain Ross is now sailing to plant the standard of science upon the south magnetic pole, under its tutelary guidance. The factories, workshops, mines, streets, and likewise the dwellings of the labouring poor, are illumined by its scattered rays; and you are using your utmost exertions to ensure its universal diffusion. Physiology has dissipated many groundless errors: the dread of spells, and of the evil eye, and of ghosts, the terrors of diabolical possession, which shook our ancestors, have all fled like the mists of the morning, before the light of experimental science. With the health, the morality and happiness of the people have advanced. The demonstration of the connexion of physical suffering and crime, must have a beneficial effect upon the conduct and the social relations of the people. The discoveries of Gall, in the physiology of the brain, have already wrought beneficial changes in education.

Nevertheless, medical art is but in its infancy; the laws of vitality, the principles of disease, and therapeutics, have been but imperfectly explored. Physiology has some of its highest problems reserved for solution. The generation and history of morbid products; the duration and fatality of diseases at all ages, and in different periods of their progress; the specific influence of remedies, and the relative value of methods of treatment, have yet to be accurately determined. In some localities, plague, remittent fever, ague, typhus, dysentery, are generated. In one set of circumstances 100 persons will suffer 50, in others, 100, in others, 150 attacks of disease annually. The causes of disease, then, are a highly important subject of inquiry, for the prevention of disease falls within the province of medicine. People live 20, or 30, or 40, or 50 years, upon an average, in different places—is it not possible to extend the term of life of the *entire population*, until they number the days of the years of life decreed by nature, and are gathered, like a shock of corn, ripe, to the home of their fathers? Is the child, the brother, the wife, the friend, to be carried away in all the freshness of youth, before your eyes, for ever, in the triumphant arms of death? The hopes and the agonies of humanity answer, No. In past ages experimental philosophers sought to discover the elixir of life, and it was believed that the body could be rendered immortal. These were dreams; but the dreams may one day receive a rational interpretation. Man may, perhaps, approach organic perfection; the body can never attain immortality, or live to the age of Methuselah; but, is it agreeable to the analogies and laws of nature that it should perish so near the period of its origin? This opens a wide field to the champions of your art; and the laurels that they win will be spotted neither with blood nor tears, but will remain green for ever in the dews of heaven.

But, alas! this prospect is overclouded. No assistance is afforded to the enterprising discoverer; endless obstacles are thrown in the way; and the means of bringing the present advantages of medical skill within the reach of the entire population are withheld. You find hindrances where you looked for help. The public are left without a guide; are actually misled by innumerable licensing bodies in different parts of the kingdom; or are left at the mercy of quacks and prescribing druggists, by the laws and the corporations which promised them protection.

The constitution of the *Medical Corporations* is at present well understood; it was described, in detail, by the officers, before the Parliamentary Committee, over which Mr. Warburton presided with so much ability; it was brought before you, in vivid colours, last year, in an Oration which will not be forgotten; otherwise it appears to me, that it would be difficult to believe, after the lapse of a few years, that such institutions as the *Medical Corporations*, in their main features, ever existed in this country. In Medical History they will show like the vast fossil extravagances of Nature in the museums; and people will find it difficult to understand how they found food, and how they sustained the temper of the climate and the century.

The *Medical Corporations* retain all the worst features of the corrupt Municipal Corporations which have been effectually reformed by the government. The councils are self-elective and irresponsible; the members are taxed by an admission fee, to the amount of, perhaps, 30,000*l.*, or 40,000*l.* a year, and regulations are made which confer exclusive privileges, honours, or pecuniary monopolies upon the corporators and their satellites. You have submitted to the profession a plan of Medical Reform, which contains nothing unjust, nothing new-fangled, nothing that is not in strict analogy with the other institutions of the country. You are no levellers: you do not desire to abolish the division of labour in practice, or to deprive practitioners and the public of the advantage of consultation with men whose opinions deserve respect. You ask no monopoly for yourselves; you ask nothing for any class or any set of individuals; you simply ask the legislature to redress the general grievances; to introduce the representative principle; to consolidate the corporations; to give the medical profession self-government; the control over their own funds and interests, and the power of placing at their head, and of rewarding, the men who have distinguished themselves by their scientific labours or by their public services.

Several of the officers of the present corporations deserve to occupy the highest ranks:

you have invited them to take a part in the reform of the medical laws; and there can be little doubt that they would be elected by the free voice of their brethren, members of a representative senate. Would not this be more grateful to them than their present position, which they occupy by self-election, amidst the murmurs of thousands? Cæsar did not *seize* the crown; "and being offered him he put it by with the back of his hand, thus;" your Cæsars have no opportunity of evincing this shrinking modesty, so natural to great merit. They instal themselves in the highest places by violence. Then they are surrounded, not by their peers, but by their dependents; and in the degenerate days of the empire, it was considered an outrage upon decency, when Caligula proposed to raise his horse to the consulship.

Medical reformers have an important task to perform; and in the present state of society when evil as well as good has powerful friends in high places, they must expect opposition; they must expect to see their motives misinterpreted; their principles assailed; their plans sometimes frustrated. They must bear up against the lukewarmness, the errors, and, what is worse, the apostacy of friends. None of these things shake the faith of sincere reformers, but arouse their courage, in the cause of the righteous principles which they have espoused. If Medical Reform, the progress of science, the honour of your profession, the public good—demand sacrifices, you are ready to make them, be they of what extent they may; and this spirit prevades the breasts of many. It is still spreading, and it is sure in the end to triumph. Public opinion, when it is founded upon justice, must triumph; and when has the opinion of the medical profession ever been so strongly expressed as in favour of Medical Reform? When was a question ever supported by such a powerful, and such an extensive, organisation?

The British Medical Association placed itself at the first in "the head and front" of the battle. Your members in the metropolis, with the Branch Associations, are animated by one spirit. The Provincial Medical Association, with their 1,200 members, adopted an admirable petition at Liverpool, and it was presented to parliament by two of her Majesty's ministers, the Marquis of Lansdown and Lord John Russell. Their leaders, whose honesty cannot be questioned, although their timidity has exposed them to reproach, will seek in the achievement of Medical Reform an undisputed title to the gratitude of their brethren. The Associations in Glasgow and Newcastle are zealous in the cause of Reform. The Irish medical profession is organised, and its numerous Associations demand justice and Reform with one voice. In the hour of trial, and when the fight begins in the next session of parliament, our Irish allies are not likely to display a craven spirit. They will neither turn their backs to the enemy nor hoist his colours.

The Medical Press is with Reformers, with a solitary exception. THE LANCET has maintained its fidelity to Reform, undeviatingly ever since it was established, sixteen years ago; it has never abandoned your cause or your interests when the heavy armed monopolists trampled upon their members. The thunders of its first years shattered their ranks. THE LANCET will not desert you now. Dr. Johnson, the Editor of the *Medico-Chirurgical Review*, advocated the principles of Reform before the Parliamentary Committee. If I am not greatly mistaken, he has refused the dubious honour of a Fellowship, directly or indirectly offered to him; he was one of your earliest members. The learned Editor of the *British and Foreign Medical Review*, Dr. Forbes, is a strenuous and avowed advocate of Medical Reform. The *Edinburgh Medical Journal* restricts its valuable pages almost exclusively to questions of science—to scientific Reform, if you will—but several editorial papers have appeared upon detached questions of practical reform. The *Dublin Medical Press* is conducted by Irish Reformers; and all the recent medical periodicals which have appeared and disappeared, or are appearing, from the *Medical Times* to the *Medical Miscellany*, are in the Reform interest. The *Medical Gazette* raises its solitary voice, at intervals, in the desert, against Reform and against you; but in the bad cause its voice is neither very loud nor very terrible.

I shall not attempt to depict the advantages which one representative Medical Faculty will inevitably produce; but of this I feel convinced, that it will act as a prodigious stimulus to every department of medical science; give the medical profession legitimate power, and lead to improvements in the public health, of which no conception can now be formed. The Members of the British Medical Association—which began where your religion began, and where all great movements take their rise, very humbly, without pomp, without great pretensions, and very open to the ridicule of the high-minded—will then reap the reward of their labours; see a new epoch in the history of the British medical profession; and enjoy the consciousness of having conferred an eternal benefit upon mankind.

ANATOMICAL REMARKS ON THE MEMBRANOUS COVERINGS OF THE BRAIN AND SPINAL MARROW.

By F. Arnold. *Zurich*, 1838.

WITH A

COMMENTARY BY DR. KNOX.

To the Editor of The Lancet.

Sir:—As I was about to address a few words to you respecting the coverings of the brain and spinal marrow, and the much disputed point concerning the opening (supposed to exist by Magendie and others) between the ventricular cavities and the spinal sub-arachnoid space, a work having the above title was put into my hands. As Dr. Arnold is known to be a very careful dissector of the nervous system, I thought it might be useful to submit to the readers of The Lancet a translation of Arnold's Memoir, adding to it a "commentary," embracing the leading points of my own researches and views of these matters.—I am, Sir, your very obedient servant,

R. Knox.

Edinburgh, 6th May, 1839.

Of the Fibrous or Outer Covering.

Anatomists are in the habit of pointing out the leading differences characterising the great divisions of the dura mater, viz., its spinal and its cephalic portions. It is admitted, however, that the close adhesion of the cephalic portion to the skeleton, more especially at the basis of the cranium around the exit of the cranial nerves, and the laxity with which the spinal portion adheres to the interior of the vertebral column, a difference in arrangement, obviously necessitated by the mobility of the one and the fixity of the other, constitute their main distinction.

From this arrangement arise others. The cerebral dura mater performs the office of periosteum to the internal surface of the bones of the cranium, whilst in the vertebral canal the vertebræ have their own periosteum. Hence it may be inferred, as is proved on inquiry, that that membrane, the dura mater, is formed of a peculiar fibrous membrane in respect to its central portion, and of an internal periosteum or endo-cranium. For, from the region of the atlas, the spinal dura mater and the periosteum of the vertebral canal meet together, adhere, are mutually so fused as to exhibit the appearance of one membrane, which, seeing they are united to the atlas (or in the region of the atlas), it may readily be observed, that this vertebræ adheres more closely to the dura mater than all the rest, as may be made manifest by exposing the vertebral canal of each, on removing for this purpose the posterior arch.* Anatomists therefore, and they are numerous, who think that the cerebral dura mater cannot in fitting places be separated into two laminæ, are assuredly in error. The separation may be effected easily in the fœtus, and between the laminæ will be found a fine soft cellular substance. Such a structural arrangement is best fitted for the cerebral dura mater—first, because those sinuous veins which in the canal are situated between the spinal dura mater and the vertebral periosteum, within the cranium, are transformed into the sinuses of the cerebral dura mater, and that these in this latter situation pass forward between the laminæ of the dura mater itself; and next follows the consideration, that the cerebral dura mater is much more vascular than the spinal, since it performs the functions of the periosteum, a membrane every where abounding in vessels. In support of this opinion may be added the greater liability of the cerebral dura mater to those morbid affections arising out of vascular irritation, proved also by the more pregnant growth of fungus from the portion of the dura mater investing the bones of the vertex, where a very large vessel, the middle meningeal artery, is expanded in it.†

Amongst the essential differences supposed to exist between the cerebral and spinal dura mater is, according to some, the processes sent inwards by the one and not by the other; but this difference does not, I am persuaded, exist. With the opinion of J. Fr. Meckel, I entirely agree that the ligamentum dentatum ought to be viewed as the internal process of the spinal dura mater; yet many anatomists, amongst whom are Bohn, Haller, Frotscher, Boyer, and Burdach, have viewed it as a process of the arachnoid, whilst others, as Sabatier, Sœmmering, Keuffel, and Weber, consider it as a process of the vascular membrane of the spinal marrow. Some of the older anatomists, as Vieussens, Huber, and Meckel, were of opinion that the ligamentum denticulatum is a process of the dura mater, whilst Gunther and Bichat considered it as a peculiar formation. Many, as Lieutaud, have declined

* Dr. Arnold's Latin presents a good many equivocal passages, and the construction of many sentences is Germanic and involved, giving rise to double meanings. I shall therefore occasionally quote the original in notes, wherever there reasonably exists doubts of his true meaning. "Quæ quoniam ad atlantem conjunguntur, facile percipitur, hanc vertebram duræ matri firmius assidere, quam reliquæ omnes, quemadmodum unicuique canale vertebrali detecto et imprimis subleto arcu posteriore manifestum sit."

† Comp. Huebener de fungo duræ matris. Heidelbr., 1832, p. 9.

giving any opinion respecting its nature and origin, viewing it merely as a ligament, by which both membranes, the fibrous and serous or vascular (et crassa et tenuis), adhere together.

But it may easily be demonstrated that the ligamentum denticulatum does not belong to the arachnoid membrane. In the first place, it (the ligamentum denticulatum) is entirely separated from the arachnoid; is placed in an interval occurring between the anterior and posterior roots of the spinal nerves, into which interval the arachnoid does not reach. To which may be added, that it is invested by the arachnoid merely in respect to its toothlike processes, by which it reaches (per transit) the dura mater. Secondly, by insufflation it may be shown that the arachnoid membrane may be raised from the spinal marrow, and from the origins of the nerves, in such a way that the ligamentum denticulatum is not moved from its natural position, nor can any interlacing or union (contextus) between the two structures be observed. Thirdly, the arachnoid may be raised from the spinal marrow and from its nerves, and even removed altogether, without any injury to the ligamentum denticulatum. Fourthly, it plainly differs from the arachnoid, has much firmness, solidity, a fibrous appearance, and silvery colour, as we find in fibroso-tendinous formations. It does therefore seem surprising that Burdach thinks the ligament to have no resemblance to the dura mater. Even Haller, who considered it as belonging to the arachnoid, yet describes it as being "strong, shining, and like a tendon, and much firmer than the arachnoid." Burdach's description of the ligament is inferior to his predecessor's.* Bichat satisfactorily refuted those who take the ligamentum denticulatum to be a process of the spinal pia mater.† Keuffel, indeed, contends that the spinal pia mater is not less solid and compact than the dura mater, and that it is *fibrous*.‡ But no one, I think, can maintain this opinion, who has examined the recent or fresh spinal marrow and its membranes, or examined a small portion of it with its vessels well injected, for in either way it shows itself as a cellular and vascular membrane, continuous with the cerebral pia mater, but stronger than it; although, on the other hand, the neuralenum of the nerves shows a more compact structure than the vascular membrane of the spinal marrow. But if we reflect on the fibrous structure of the ligamentum dentatum, its silvery appearance, and its intimate union with the fibrous membrane or dura mater, and that its numerous teeth (20-23) pass into it; if, finally, we weigh well those observations considered above, respecting the differences of the ligament and its separation from the arachnoid and pia mater, those anatomists will seem most closely to approximate the truth, who view the ligamentum dentatum as appertaining to the dura mater, and to be considered as equal or analagous to the internal processes of the cerebral dura mater. For what Gunther and Bichat thought, that the ligamentum dentatum is manifestly a peculiar formation, we cannot agree to, for this reason; that the fibrous character of which they speak cannot be perceived, and that it is quite evident that the ligament passes into the dura mater. The more remarkable distinction, then, between the cerebral and spinal dura mater is that, whilst in the former the processes have their base outwards and point inwards, those of the spinal dura mater (viz., the ligamentum denticulatum) have the base inwards and point outwards. This difference seems to have arisen from the mobility of the vertebral column, and the immobility of the individual parts of the cranium.

The ligamentum denticulatum receives its first process from the dura mater, near the foramen magnum of the occipital bone, behind the vertebral artery, and before the nervous accessorius of Willis, and its lowest process above the transit of the second pair of lumbar nerves; towards the conical extremity of the spinal marrow it sends off a process, which gradually thinning, does not reach it, but ends a few lines above it. What Bock thought in respect to the silvery white filaments, which descend on each side of the spinal marrow, as if they were continuations of the ligamentum denticulatum, I find is not supported by an appeal to the structure itself.

Remarks by Dr. Knox.

There seem to me but two points in the above section by Dr. Arnold, which call for any remark. First, the vascularity of the external layer or layers of the cranial dura mater is, in some animals, very remarkable. In certain of the cetacea, the rorqual, for example, there is a perfectly distinct vascular layer between the dura mater, properly so called, and the bones, which vascularity may be connected with the vast thickness of the bones of the cranium at this particular part, and these particular species of whales; so that, perhaps, after all, what older anatomists used to call merely the "dura mater," is, in all probability, a much

* I have deemed it unnecessary to translate what Dr. Arnold thinks to have been the cause of Burdach's error.

† Bichat's arguments were chiefly founded on the want of a continuous connexion between the ligament and the pia mater, and the dissimilarity in their texture, the one being vascular—the other compact, fibrous, silvery.

‡ Keuffel thinks the pia mater to be composed of transverse and straight fibres, and that it ought to be referred to the fibrous membrane.

more complex tissue than has very generally been supposed. It would admit of an analysis into four distinct textures or layers:—1st. The smooth serous membrane being the parietal layer of the arachnoid. 2nd. A fibrous layer, properly so called. 3rd. A vascular layer, rudimentary in some animals, and remarkably developed in others. 4th. A periosteum, also vascular.

The second point to which I would beg leave to call the reader's attention is, Dr. Arnold's opinion respecting the nature of the ligamentum dentatum. In the remarks which follow respecting the structure of the pia mater, or proper spinal membrane, I shall endeavour to show that this ligament may more properly be considered as analogous to certain tendinous shining cords connecting the cerebral arachnoid to the pia mater, and that Dr. Arnold's opinion that it is analogous to the processes of the cranial dura mater, can scarcely be maintained.

On the Serous, or Middle Membrane.

The middle or serous covering of the brain and spinal marrow, which is also called arachnoid, or mucous and serous, was considered as belonging to the vascular membrane by the older anatomists, and even by Chaussier amongst the moderns. Bidloo and Bohn, however, thought it to be a peculiar membrane. Blasius gave it the name of arachnoid, and Bohn showed that the internal surface of the dura mater was formed by it. Finally, Bichat proved, by many important arguments, that the arachnoid ought to be classed with the serous membranes. He described the anatomical course of the membrane with an accuracy which no modern has excelled, and few approached. From the time indeed of Haller, many anatomists viewed the arachnoid as a membrane distinct from the vascular. Haller himself thought so; and Sœmmering declares it to be unlike any other in the body, unless it be, perhaps, the very delicate membrane of the human ovum. As the clear description of Bichat must be in every body's hand, I shall here merely request those who have neglected to do so, to read it again with more attention. Whilst in the remarks I have to make respecting the arachnoid, I shall confine myself chiefly to the comparison of this serous membrane with other serous sacs; and, secondly, refer to some doubtful points which partly belong to Bichat, partly to Magendie and St. Martin.

The arachnoid is usually considered a single serous sac like the peritoneum, pleura, pericardium, &c. Bichat describes it as such. He distingnished it in two parts; one investing the brain and spinal marrow, the other the dura mater, which mutually pass to each other, being provided with funnel-shaped processes, in which lay the blood-vessels and nerves. But Bichat, at the same time, remarks that, if this description should happen not to please all, then the arachnoid may be viewed as a membrane merely covering the brain and spinal marrow, furnishing sheaths to the nerves and blood-vessels reflected towards the dura mater. If the medulla spinalis, with its coverings, be dissected between the exit out of two pair of nerves, two sacs may be observed; one interior, the other exterior; the posterior of which is intimately united to the internal surface of the dura mater; the former (prior), however, loosely covers the medulla spinalis. But, if the dissection be made in that part where the nerves pass through the dura mater, or where any of the tooth-like processes of the ligamentum denticulatum adhere to it, it is necessary to admit either two sacs, an anterior and posterior, or that the internal sac passes into the external by the funnel-shaped processes; and, if two sacs be admitted, then between them are situated the medulla spinalis, with its nerves and vessels, as well as the ligament itself. To me it appears evident that the construction of the serous membrane of the brain and medulla spinalis differs from that of other serous membranes, in this; that the former is composed of two sacs, of which either the exterior includes the interior, or one rests anteriorly, the other posteriorly, on the spinal marrow; one on the basis of the brain, the other on its upper surface. If the former view be adopted, it is manifest that the interior sac passes into the exterior by as many funnel-shaped canals as there are nerves and vessels leaving the central substance and coming to it. If the latter view be adopted, then it must be admitted that the anterior sac has as many continuations with the posterior as there exist intervals between each of the spinal and cerebral nerves. This mode of viewing the structure, we much prefer to the former, as being less intricate. Weber also thinks that the arachnoid is so folded, or doubled, that the larger includes the smaller, and is reflected into the smaller at the extremity of each sac; in short, that this serous membrane is arranged nearly after the fashion of the serous (synovial?) membrane of the sheaths of tendons.

Bichat taught that the arachnoid proceeds into the third ventricle, between the corpus callosum and anterior portion of the cerebellum, by an oval opening, that by the same opening the vena magna Galeni passes outward, and that whilst it forms a peculiar canal, it proceeds into the middle ventricle of the brain, by the aqueduct of Sylvius, backwards into the fourth, and laterally invests the interior of the lateral ventricles. But, respecting these statements, anatomists have raised many doubts. A few have entirely adopted the views of Bichat, as Savary, Wenzel, J. F. Meckel, and Van den Broecke. Others, as Magendie, Guizot, and St. Martin, oppose these views altogether. They assert that the arachnoid does not

penetrate into the ventricles, that the canal of Bichat has no existence, and that injections made into the cavity of the arachnoid do not reach the ventricular cavities. Other anatomists, by their silence, tacitly dissent from Bichat's views. Burdach even thinks that the arachnoid is here pierced by the vena magna Galeni. On the contrary, I entirely assent to the accuracy of Bichat's description, and think that the arachnoid proceeds to join the epithelium of the ventricles, as the amnion is in distinct continuation with the epidermis of the fœtus. In the dog, sheep, pig, calf, I have always found the foramen of Bichat to be a rounded opening, as described by him, and in which lies the vena magna of Galen. Burdach's idea is readily refuted by an appeal to the universal arrangement of serous membranes. But, I cannot venture to affirm with Bichat that the investing membrane of the ventricles is a serous membrane. It seems to hold the same relation to the substance of the brain as the epidermis does to the corium; the serous membrane, or arachnoid, merely unites with the epithelium of the ventricles. This union of different membranes happens in woman, in respect to the peritoneum, and in birds and fishes. The nature of the ventricular epithelium is ever opposed to that of serous membranes, as being perforated by numerous blood-vessels.

Remarks by Dr. Knox.

After numerous very careful inspections and examinations of the arachnoid, I have arrived at conclusions different in many important points from those of Dr. Arnold.

Arachnoid.—One of the most striking differences between the cerebral and spinal arachnoid consists in the latter having its visceral layer very generally free upon both surfaces, whilst in the former, the visceral aspect of this layer is more or less fixed. But this in itself, when examined into with care, does not, after all, constitute any very remarkable distinction; inasmuch as even the cerebral arachnoid has large portions which are just as free upon both surfaces as are any parts of the spinal arachnoid. When we use the word free, however, it is to be used in a very restricted sense; and I shall now explain this more fully, and, perhaps, more advantageously to my junior readers, by examining, in detail, some portions of this membrane. I may commence with that portion which lies on the anterior surface of the pons and of the medulla oblongata. At first sight this appears to be quite loose, and to pass in a sheet or layer from these two parts upon the cerebellum, but when cut through and raised from that portion of the medulla oblongata adjoining mesially the origins of the hypoglossal nerves, the arachnoid will be found to adhere by numerous elongated shining tendinous-looking cords, connecting its deep or visceral aspect with the *proper membrane* of the medulla oblongata, which, for brevity's sake, I shall call its pia mater, although it is a good deal unlike the true cerebral pia mater investing the cerebral convolutions. Now, these elongated shining connecting cords, although they may be, and probably are, just cellular tissue, do not look exactly like it, but have rather a tendinous appearance, and so also has that portion of the pia mater investing the anterior surface of the medulla oblongata; indeed, the whole structure and especially the connecting filaments, have a great resemblance to the ligamentum dentatum; which, in this way of viewing the matter, would form merely a *regular* series of connecting fibrous cords. Their attachment externally to the dura mater, forms no serious objection to this view, since they carry the arachnoid along with them. Let us suppose that we now trace the arachnoid towards the right side. Having raised it up there occurs a pulpy *looking* membrane, which in brains preserved long in spirits, comes off in shreds or large patches, and imbedded in this may be seen the right vertebral artery. This substance, which looks almost inorganic, and resembles somewhat the tunica serosa described in the eye by Dr. Jacob, occupies the sub-arachnoid space. Its texture, if it has any, would not be sufficient to fix the vertebral arteries to the subjacent pia mater; and, therefore, we find a very delicate filamentous tissue, and a number of the same tendinous-looking cords I have already spoken of, running across the arteries in various directions, and thus securing them in their places; around these great arteries there is nothing like a proper cellular sheath, and at first they lie wholly exterior to the pia mater of the medulla. Tracing now the arachnoid across the hypoglossal nerves, and groove or space between the medulla and cerebellum, we find that the arachnoid does not dip in here, but passes like a bridge, connected with the subjacent pia mater by tendinous cords, if I may venture to call them, which naturally have here a length proportioned at least to the spaces they traverse, and are even somewhat longer. But having reached the laminæ of the cerebellar hemisphere, its mode of connexion with the pia mater alters essentially from what it was over the medulla; the union becomes intimate, and nearly at all points. There is no longer any sub-arachnoid space, and the pia mater itself becoming very vascular, loses that shining fibrous look it had whilst covering the medulla, and at each interval of the cerebellar laminæ (as in the cerebrum) sends in deep processes of delicate cellular tissue, accompanying the vessels to the bottom of the anfractuosities, filling up their intervals, and investing the opposing sides of the cerebellar laminæ; in short, quite similar to its arrangement on the brain itself. The membranous and vascular processes thus dipping be-

tween the cerebellar laminæ, seem to me remarkable, in the following points, as will be more fully brought out afterwards:—1st. The pia mater in passing from one lamina to another, adheres very intimately to the free edge of each, thus uniting them, as it were, intimately together; 2nd, the process transmitted between the laminæ, not only contains numerous vessels, but likewise invests the opposing surfaces of the laminæ with a delicate and perfectly transparent membrane, which I shall afterwards endeavour to prove to be strictly analogous to the lining ventricular membrane; and, 3rd, these processes of the pia mater are arranged in a manner, not only similar as regards cerebrum and cerebellum generally, but also in respect to that particular part, more especially when the pia mater transmits into the anterior of the ventricles, the choroid plexuses and the ventricular lining membrane.

When the arachnoid is traced forward over the pons as far as the crura cerebri, nothing remarkable or different from its usual arrangement takes place; it is well known that the sub-arachnoid space at the base of the brain, is very large, or, in other words, that at the base of the brain the visceral layer of the arachnoid presents two free surfaces.

There remains two points respecting which the passage of this membrane presents greater difficulties: first, how does it pass from the posterior surface of the medulla oblongata to the cerebellum? And, secondly, how far does it penetrate into the great cerebral fissure, usually called "fissure of Bichat," but which had been noted and described by so many preceding anatomists?

First. The arachnoid passes, as one uninterrupted layer, from the posterior surface and sides of the medulla oblongata to the hemispheres and median portions of the cerebellum without the smallest interruption, or dipping in, towards the fourth ventricle; the ventricle is completely shut up by the membrane, and all communication between the ventricular cavity and general arachnoid cavity entirely prevented. Thus, serous and other fluids, collected within the ventricular cavities, can never escape into the general serous or arachnoid cavity, except by a laceration of this membrane at least. Every anatomist who has dissected the brain of a person who had died of hydrocephalus internus, must have remarked how completely the cavity of the fourth ventricle is insulated; how certain the fact that no communication exists here between the exterior and interior surfaces of the brain. On cutting into this layer of the arachnoid, and tearing it from off the subjacent parts, we find that the cavity of the ventricle has not yet been opened at *any point*; *two* membranes still shut it up. These membranes seem to me both to belong to the pia mater. The first layer follows pretty nearly the course of the arachnoid itself as it shuts in the ventricle; in fact, it merely doubles it, and, no doubt, has been often cut through by the dissector unnoticed, or taken merely for a portion of the arachnoid itself, which, however, it is not, being united to it in the usual way, that is, by cross bands, of a cellular-looking substance. If we now trace this membrane outwards, towards the medulla oblongata, we shall find that, after investing closely the lateral portions of the restiform bodies, the pia mater, proceeding inwards, towards the posterior median fissure, divides at first into two layers; the outermost of these is the one I have just described, as doubling that portion of the arachnoid which shuts in the fourth ventricle; its inner surface is connected by innumerable cellular filaments and blood-vessels proceeding from it, to the layer of the pia mater immediately investing the corpora restiformia. This layer proceeds inwards to the edge of the calamus scriptorius, and here sends up a dense fibrous lamina, uniting the medulla intimately to the lower surface of the inferior vermiform process of the cerebellum (valves of Tarin); in this way the *ventricular cavity* is *completely shut out* from any communication with the *sub-arachnoid* cavity. No natural openings ever exist in this dense membrane, nor in that layer of the same membrane which I have just described as doubling the arachnoid; so that those which Magendie, the most illustrious physiologist of modern times, imagined he had discovered here, do not, in reality, exist. This membrane may, of course, be traced upwards, as far as the passage of the nervous filaments seen on the floor of the fourth ventricle, and usually supposed to be the origins of the auditory nerves. But even here there are no *openings* naturally existing, the membrane adhering in all directions, and at every point. From the outer margin of the calamus scriptorius, and from a corresponding point of the inferior vermiform process there is detached an exceedingly delicate and transparent filamentous tissue; *this tissue is the ventricular investing membrane*, which, although not vascular, is yet derived from the pia mater; it is the same structure which invests the opposing surfaces of the convolutions, lateral ventricles, &c. I shall describe it more fully when speaking of the pia mater, from which it seems to be derived.

Secondly. The connexion of the cerebral arachnoid membrane, with the great cerebral fissure of Vicq D'Azyr and Bichat, may be described in this way:—Commencing with the base of the brain, where the fissure commences, and tracing it upwards towards the upper surface, the arachnoid will be found to pass directly over the fissure, without in the slightest degree dipping into it; and this is a fact just as evident, and as easily

made out, as that other fact, viz., that the arachnoid does not descend between the cerebral convolutions. But on tracing it quite up to the part of the fissure which is situated between the corpora quadrigemina and back part of the fornix and corpus callosum united, it is evident that the arachnoid does form *a short canal*, precisely in the situation of, and around the vena magna Galeni. How far this canal penetrates it is somewhat difficult to determine; in some of the brains I have examined it scarcely proceeded an inch, in others less; but, however this may be, it is I think unquestionable that Bichat committed a great error in supposing that this canal proceeded into the interior of the ventricles, and that thus a passage was established between the ventricular cavities and the general serous cavity of the arachnoid. If we now return again to the commencement of the fissure at the base of the brain, and raise up the arachnoid from off the pia mater, which here, as elsewhere, lies directly beneath it, it will be found, I think, that the arrangement of this membrane (the pia mater) is very similar, in respect to the fissure, as with the common cerebral convolutions and anfractuosities. For first, a portion of it passes directly across the fissure; secondly, a process is sent inwards, to form the choroid plexuses and velum interpositum; and, thirdly, at the edges of the fissure the pia mater, besides adhering very closely at the very edge, transmits a perfectly transparent and extremely delicate layer, filamentous and cellular, but not vascular, which, investing the opposing surfaces of the ventricular walls, constitutes the *proper ventricular membrane*; in short, the processes of the pia mater, which dip in between the convolutions, might almost be considered as analogous to the choroid plexuses, so similar are they in their arrangement, and perhaps, also, in their functions. A similar analogy subsists between the ventricular lining membrane and that investing the opposing surfaces of the convolutions.

The questions then as to the nature of the ventricular membrane, the arachnoid canal of Bichat, and the foramen of communication between the fourth ventricle and the sub-arachnoid cavity, I shall venture to think are settled, or at least cleared up, by the preceding remarks. Unwilling, however, not to bestow on M. Magendie's arguments all the attention his great name merits, I thought it but justice to that distinguished person to institute inquiries more in accord with his peculiar line of investigation; or, in other words, I endeavoured to test, mechanically, my own dissections. Four dogs, which had been destroyed by some of my experimenting, physiological friends, were obtained, and the skull-cap and posterior segment of the spinal column removed in all, so as to lay bare the cerebral and spinal dura mater. This membrane was next cautiously incised, cutting into the cavity of the arachnoid; and, at this stage of the dissection, it was observed (the animal having been recently poisoned) that the sub-arachnoid cellular space of the spinal arachnoid contained a very considerable quantity of the cerebro-spinal fluid of Cotunni. Air, ink, and coloured water were now injected in a variety of ways, for the purpose of ascertaining whether or not any openings of communication existed between the fourth ventricle and the sub-arachnoid space; but neither air, nor ink, nor coloured water injected into the aqueduct of Sylvius, and by it into the fourth ventricle, could be made to pass the limits of this ventricle, so long as a moderate force was employed; whilst, on using a very considerable force, the fluid, or air, as happened to be the case, merely burst into the proper tissue of the pia mater (valves of Tarin, &c.), and slowly made its way outwards towards the crura cerebelli and sides of the medulla.

Were I to venture an opinion as to the causes of the different ideas entertained on all these points by distinguished observers, I would suggest the following circumstances as not having been sufficiently attended to—1st. The precise anatomy of the pia mater, as it passes from one convolution of the brain to another, and from one cerebellar lamina to another; the process it sends inwards analogous to the choroid plexuses; the intimate union of the pia mater at the edges where the membrane first begins to dip; and the delicate and perfectly transparent layers it transmits to the bottom of each anfractuosity investing the opposing surfaces of the convolutions. 2nd. The analogy of the pia mater, where it passes over and into the great cerebral fissure with that portion covering the convolutions; the close adhesions of the pia mater to the edges of the cerebral fissure, and its sub-division into at least three layers: a central, constituting the choroid plexus, and one above and below to form the ventricular investing membrane. 3rd. Anatomists have not attended sufficiently to that layer of the pia mater which lies immediately below the arachnoid, as it passes from the medulla oblongata to the cerebellum, nor to the mode of union between the two, by delicate tendinous-looking chords;* they have, probably,

* The usual statement that the arachnoid membrane is remarkable for presenting free secreting surfaces upon both sides, both as regards the spinal arachnoid, and certain portions of the cerebral arachnoid, I have shown above to be an assertion too strongly made. The system of connecting fibrous filaments between the visceral layer of the arachnoid and pia mater is much more extended than is generally thought, and of which fact any anatomist may readily sa-

in removing the arachnoid at this place, also removed this layer of the pia mater; and on this being done, the fourth ventricle would, at first sight, appear open behind, close to the calamus scriptorius; but it is not so, the intervening space is crowded with cellular filaments and small blood-vessels, and if the dissector proceed with caution, laterally at first, and afterwards mesially, he will find lying much deeper another membrane, dense and fibrous, shutting in the fourth ventricle completely, and passing from the inner edges of the corpora restiformia to the vermiform process of the cerebellum. It is into this space between the two layers just mentioned, that air, or coloured water, passes when injected forcibly by the aqueduct of Sylvius into the fourth ventricle. At first it is confined to the ventricle; but gradually or suddenly, as may be, bursting the deepest layer, it diffuses itself towards the cerebellum, as if it had really passed into the sub-arachnoid space. It is in this deep layer of the pia mater, whose upper portions form the pretended valves Tarin, that M. Magendie's foramen of communication has been supposed to exist.

Of the Vascular or Inner Membrane.

The pia mater exhibits so many differences, according as it is viewed in different parts, that Keuffel thought the spinal pia mater to be fibrous, but not vascular. He also thought that the functions of the spinal pia mater were to strengthen and support the medulla; and, in respect to its vessels, that they are merely fixed to its external surface. Even to the superficial observer, it must be evident that the spinal pia mater differs from the cerebral in respect to density, solidity, and in a less vascularity. But, on the other hand it is manifest, as Keuffel was forced to admit, that the spinal pia mater is still sufficiently vascular, although less so than the cerebral, and that vessels pass directly from it to the medulla; and moreover, that the spinal pia mater holds an intermediate place between the neurilema of the nerves and the cerebral pia mater, as the medulla spinalis itself is intermediate, in some measure, to the brain and the nerves. To this may be added, that membranes essentially of the same nature, yet differ much in respect to their vessels as the periosteum and the aponeuroses.

The spinal pia mater sends a single process into the anterior fissure. There are no lateral nor posterior processes, but blood-vessels leave its whole internal surface, proceeding into the medulla. This arrangement happens from the distribution of the anterior spinal artery as a single trunk, and of the posterior as two; the single process being evidently in connexion with the single anterior artery. But, in the upper part of the medulla spinalis, where the decussation takes place, and likewise in the lumbar enlargement, the arrangement is somewhat different than in other parts. For here the vascular process upon the anterior surface is imperfect and interrupted, and the vascular tunic enters the posterior surface, almost reaching the cineritious centre towards the right and left. If the top of the spinal marrow, either naturally or artificially injected, be divided from before backwards, so that the vascular process be left attached to one part, and the decussating fibres separated, it will be observed that, from a point opposite the decussation, a process of the pia mater enters the medulla, which passes downwards and upwards, ending in the pia mater of the medulla oblongata. Frequently, also, in the lumbar enlargement, I have seen a process of the vascular membrane entering the medulla on its posterior aspect, and, indeed, throughout the whole length of the enlargement, having a reference, apparently, to the strengthening of this part. But, throughout the rest of the spinal marrow, there is no posterior process of the pia mater.

The pia mater does not terminate with the spinal marrow, but as a sheath for the anterior artery and vein, it passes through the dura mater, to terminate upon the posterior surface of the ossa coccygis. The artery communicates here with the sacral arteries, the veins do the same, and hence the practical advice of some to bleed from this region in inflammation of the spinal marrow, or its membranes.

A very fine nerve lies close to the terminal filament of the spinal marrow on each side, upon which there is also within the dura matral sheath a ganglion. This is the nevus coccygis, which is not placed within the terminating sheath of the pia mater, but adheres so closely to it, that on raising up the filament from the cauda equina, the nerve is often raised with it. This circumstance has probably caused the numerous errors committed in the description of the filament. Till the middle of the sixteenth century, almost all anatomists considered this filament as the termination of the spinal marrow, or some nerve sent from it, and they very frequently gave it the name of the azygous nerve of the spinal marrow. Vieussens, and after him, many others, considered it a process of the vascular tunic. Monro thought it the lowest part of the ligamentum denticulatum. Haller believed it to be a sheath for the artery formerly mentioned, and its vein. He said of it, "There is a small sheath derived from the pia mater, which envelopes a small branch of the anterior spinal artery, and a vein coming from the lower part of the spinal marrow, and which continues with them as far as the

tisfy himself by placing the brain under water and carefully raising up the arachnoid layer.

lower part of the coccyx, and the membranes which cover it." It would be unnecessary to say more of this matter, if Burdach and Bock, among the moderns, had not defended the opinion of the older anatomists. The first of these says, that the superior part, at least, of the terminal filament, as far down as about two inches from the central termination of the last sacral nerves, resembles the true spinal marrow; firstly, because from the microscopical observations of Barba, it appears that the cineritious matter, and even some appearances of medullary substance, can be traced in that space. Secondly, because, in the lower portion of this space, he once observed a swelling resembling a ganglion, which had been before observed and drawn as a ganglion by Beretini. Thirdly, because, in birds and fishes, the spinal marrow commences at the bottom of the coccygeal vertebræ, in the form of a filament. Burdach conceived the inferior part of the same filament to resemble the coccygeal nerve. 1st. Because its superior part is formed by the spinal marrow, which he thought must be connected with nerves from below also. 2nd. Because, in its progress downwards, the inferior part of this filament bears the same relation to the fibrous membrane, as any of the other spinal nerves. 3rd. In the human embryo the filament is comparatively stronger than in the adult. 4th. The coccygeal nerves, along with the filament, run perpendicularly in the same direction as the spinal marrow itself. 5th. A certain resemblance to the constitution of the whole nervous system is pointed out by the radiated distribution of the filament to the posterior surface of the coccyx. Bock, who also held these opinions, and extended the description given by Burdach, remarked, that what is generally called the filament of the spinal marrow, consists of the single root of the coccygeal nerves—the termination, as it were, of the spinal marrow, and of a peculiar sheath derived from the pia mater, which, however, ends in the termination of the sac of the dura mater. At this place the slender root of the coccygeal nerves usually divides into two branches, or if, as sometimes happens, it has divided higher up, it passes downwards beyond the sheath, and proceeds on to its destination. The observations of Robert Remak on the filament of the spinal marrow in the ox, confirm Burdach's views. In this tribe of animals it is composed of a process of spinal marrow, and even of cineritious substance, which, when examined with the aid of the microscope, presents a structure similar to that of the cineritious matter of the brain.

Having examined these opinions, it may be observed, 1st, that only in the uppermost part, and usually not further than the first inch, does the terminal filament contain nervous matter—chiefly medullary as far as I have seen. In the ox it descends much further than in man, and a comparative examination of the terminal filaments in each proves Remak's conjecture unfounded, for he proceeds on the ground that in this respect there can be no essential difference between man and the other maniferous animals. If the coccygeal nerves be removed, the greater part of the filament presents the appearance, not of nervous matter, but of a firm cellular membrane. In it may be observed a continuation of the pia mater of the spinal marrow, but firmer and whiter than this membrane is usually, so that it is not wonderful that many anatomists have mistaken it for a continuation of the spinal marrow. The ligamentum denticulatum does not extend so far as this filament; it ceases a little above the conical end of the spinal chord. I never could see that the shining thread-like filaments which descend on each side, are continuations of this ligament, as Bock supposes them to be. The filament itself finally terminates in the periosteum of the posterior surface of the ossa coccygis, so that its vessels anastomose with the coccygeal; secondly, the ganglion-like swellings, belong not to the filament but to the coccygeal nerves; thirdly, at first the spinal marrow, as is well known, extends throughout the whole length of the vertebral canal, as far down as the coccyx, but as the body increases in size, it recedes from the lower part of the canal, and only a narrow slip of the pia mater is left, forming a sheath for the vessels. This is readily proved by examining the spinal marrow of the fœtus at different periods of its growth. If we examine the relations of the anterior spinal artery and vein, we will find the cause why the terminal filament remains, and the function it performs, for to these vessels it furnishes a sheath. Burdach's opinion that the vascular tissure is present, not on its own account, but for the sake of the spinal marrow, without which, he says, it could not exist, is false and frivolous; and so also is his statement that the spinal artery cannot proceed further than the spinal chord, because he affirms it is opposed to all analogy, that the principal artery of an important organ should be distributed to parts quite unconnected with it. Observation shows us, that vessels exist in the terminal filament, and in the same way the commencement of the obliterated umbilical arteries furnishes a sheath for the vesical arteries; besides the umbilical arteries, the ductus arteriosus of Botal, and the ductus venosus of Arrantius, remain ligamentous chords throughout life, though they no more give passage to blood, than the terminal filament includes the spinal marrow. What has been said of its nervous nature, requires no refutation; for this theory has never been supported by anything deserving the name of argument.

Remarks by Dr. Knox.

In addition to these remarks by Dr. Arnold, it may be observed, that the portion of this membrane investing the anterior surface of the medulla oblongata is firm, very strong, unyielding, and fibrous. The tendinous-looking filaments, at times in considerable numbers, connecting its outer surface with the arachnoid, have not been sufficiently adverted to by anatomists. Although it be true that the larger arteries are situated generally at first exterior to the pia mater, merely bound to it by cellular membrane, and some of these tendinous chords (as I have already noticed in speaking of the vertebral and basilar arteries), yet they soon pass through the pia mater, get imbedded in it, and so reach its inner surface; so that Keuffel's first opinion was clearly untenable. The greater number of my remarks respecting the course of the pia mater have been anticipated in speaking of the arachnoid. To that section I beg leave, therefore, to refer the reader.

RETROVERSION OF THE UTERUS.

To the Editor of THE LANCET.

SIR:—By publishing the following case, you will oblige your most obedient servant, M. D. THOMPSON.

Stalybridge, Oct. 8, 1839.

As cases of retroversio uteri rarely occur, and as such authorities as Hunter, Weir, Burns, Ashwell, Denman, Baynham, and others, differ essentially one among another, as to the cause and treatment of the disease, it may not be amiss to report a case which has lately been under my care.

On the 1st inst., at 10 o'clock, A.M., I saw Ann ——, æt. 32, resident in the neighbourhood, who was labouring under retroversio uteri.

She is a married woman, and has borne four children; but it is ten years since she bore the last child, since which event she has menstruated regularly, until about four months ago, when she ceased menstruating, and from that time to the present she has considered herself to be pregnant. During a part of that time, and particularly during the last fortnight, she has had almost an incessant desire to discharge her urine, which she has neglected to attend to, until she has been, by force, ultimately compelled.

At five o'clock this morning, after having held during the night her urine, she attempted to discharge it, but was incapable of so doing.

When I saw her, she complained of retention of urine. She had paroxysms of pain, which simulated in appearance ordinary labour pains.

On my examination of the abdomen, I found there a large tumour, of a pyriform figure (having its base superiorly and its apex inferiorly), extending from the pelvis to the umbilicus; proceeding with the examination, per vaginam, of the parts within the pelvis, I found that the uterus was considerably enlarged, and in a retroverted state, having its fundus inferiorly and posteriorly (which was immoveable) in the hollow of the sacrum, and its cervix anteriorly and superiorly (which was moveable) above the brim of the pelvis, and parallel with the symphisis pubis.

The length of the vagina (with the fundus uteri) was considerably diminished posteriorly, where its membrane was tense, extending itself very little further backwards than the posterior commissure of the outlet.

I introduced a catheter into the bladder, and drew off an enormous quantity of urine, which relieved the paroxysms of pain, and also the abdominal tumour—the enormously distended bladder; and then I repeated the examination, per vaginam, of the parts within the pelvis, and found them in the same situation as they were on the previous examination.

Believing that the attempt, under such circumstances, to reduce, by manual operation, the uterus to its proper situation, especially after having considered the immovable state of its fundus, would be attended with considerable danger, I declined such interference, and prescribed for the patient purgative medicines and clysters, to evacuate the bowels, and thereby relax more freely the parts within the pelvis.

I then left the patient, and absented myself nearly five hours, when I returned with Mr. Pearson, an intelligent surgeon, resident in the neighbourhood.

After his examination of the case, he corroborated my opinion, and advocated a continuance of the treatment which had previously been adopted by me.

The bladder was emptied three times during the day with a catheter. It was the following moring, the 2d inst., at two o'clock, before the bowels were moved, and betwixt that hour and the time of my calling at 10 o'clock, they had been copiously evacuated, but the retroversion of the uterus and the retention of urine were the same as during the previous day; the accumulation of urine, however, in the bladder was small.

The purgative medicines were continued, and the clysters omitted. In the afternoon, at three o'clock, I was summoned in haste to visit the patient, being informed that she was worse than she had previously been. When I saw her, she was in great agony, and the abdominal tumour (the enormously distended bladder) was nearly as large as it was on the first visit. A catheter was introduced into the bladder, and nearly a gallon of urine was removed. Conceiving that if the accumulation of urine were the cause of

the disease (as probably it was), it was necessary to keep a continual drain from the bladder, I introduced a male elastic catheter into the bladder, and left it there.

Having cut off a portion of the cervix and fundus of a calf's bladder, I attached, with a ligature, one extremity to the catheter, and tied, with a little narrow tape, the other extremity, in such a manner, that when the urine accumulated in it, the tape might be loosened and the urine discharged. By this plan of treatment the patient was kept dry and comfortable, and any accumulation of urine in the bladder was prevented.

On the 5th inst. I again repeated the examination of the parts within the pelvis, when I found that the uterus had resumed its proper situation.

In the case which I have reported, it seems probable that the distention of the bladder was the cause of the retroversion of the uterus, and all the other symptoms, as by removing the distention of the bladder, and preventing a return of it, all the symptoms subsided, and the retroverted uterus, per naturales vias, resumed its proper situation; consequently it is my opinion that Dr. Denman's theory of retroversio uteri might be the best employed to explain this case.

OBSERVATIONS ON THE "PUS GLOBULES" AS SEEN IN THE BLOOD.

To the Editor of THE LANCET.

SIR:—Having read in THE LANCET for September 21st, a condensed account of Mr. Gulliver's very interesting paper on the presence of the pus globule in the blood, during the process of inflammation and suppuration, I am induced to trouble you with a few observations on the same subject. In the first place, to add my testimony to the truth of the most prominent facts brought forward by that gentleman, but principally with a view to facilitate similar inquiries, by explaining a very simple method, of not only detecting (by the aid of the microscope) the presence of the pus globule, in the smallest drop of blood taken during life, but also of preserving the specimen for future reference. In this way a series of observations may be made with facility on the appearance of the blood corpuscles in various diseases, and of any addition to them of pus, or other visible material; whether the product of disease or of healthy function, as in the admixture of the chyle granule with the blood. From several observations that I have lately made, I feel warranted in stating it may be readily distinguished, after an abundent flow into the blood. I think I am not going too far in hinting at the possibility of being enabled to trace the chyle granule in its after relations with the vital fluid, and, indeed, at the probability of its forming a constituent part of the blood corpuscule, on which subject I may shortly again trouble you with a few remarks.

The method which I have adopted, consists simply in procuring a drop of blood, by puncture with a needle, in the extremity of the finger, or by using the lancet in some less sensitive part, much in the same way, as in the ordinary operation for inserting the vaccine lymph. The drop of blood is to be received upon a piece of glass, which should be immediately placed upon its edge, so that the blood in gravitating may leave a single layer of the corpuscles at the upper part. Any superimposed layer will tend greatly to obscure the blood corpuscles themselves, and will entirely conceal the less frequently occurring particles. The glasses thus prepared, will enable the observer at once to detect the pus globule, which will generally be found interspersed amongst the blood corpuscles, especially near the margin of the specimen. I should observe that no further preparation is required to render the appearances permanent. For the purpose of illustration, I will now select two out of many specimens of blood thus prepared for microscopical observation, which have remained unaltered for two or three months.

The first, marked No. 7, I find, by reference to the catalogue, was taken from a patient labouring under phthisis, with purulent expectoration. With the half-inch object glass, which takes in a field of 1-16th of an inch in diameter, as many as a hundred of the so-called pus globules, may be enumerated, and with the $\frac{1}{4}$th of an inch object glass, embracing a field of $\frac{1}{28}$ of an inch in diameter, sixteen pus globules may be distinctly seen.

In the second specimen marked No. 10, the blood was taken from a man suffering from suppuration in the forearm, after diffuse cellular inflammation. There, with the $\frac{1}{4}$ of an inch object glass, in a field of $\frac{1}{28}$ of an inch in diameter, I observe eight pus globules, or one half as many as in the case of phthisis.

It is necessary to state, that in blood taken from the human subject, and from animals apparently in health, the pus globules, though few in number, may be detected in almost every instance. This, in the minds of many, might appear to throw some doubt on the nature of these globules. I am myself strongly inclined to think they have been rightly designated pus globules. But if any one interested in this subject, wishes to form an opinion from his own observation, I shall be most happy to offer him an opportunity of doing so. I would

recommend him first to make himself familiar with the appearances of the pus globule and blood corpuscule, viewed separately; and then to mix some pus and blood artificially, allowing the latter greatly to preponderate. If a drop of this fluid be placed on a piece of glass for observation, no difficulty will be experienced in distinguishing the pus globules, which have precisely the same form, magnitude, colour, and appearance in every respect, as those which are observed to occur in such numbers naturally, where suppuration is being carried on in some part of the system. I have this morning procured a most interesting specimen of blood, containing a greater quantity of pus globules, and more clustered together, than I have hitherto seen. A hundred may be observed in a field of $\frac{1}{40}$ of an inch in diameter. The drop of blood here alluded to was taken from the femoral vein of a goat. The animal died yesterday, and its death was caused by a needle which had pierced the right ventricle of the heart, and was partly seen on opening the pericardium, while the remainder was buried in the substance of the organ. The pericardium was much thickened; in some parts to the extent of two or three lines, and was adherent at the apex, but not elsewhere. It was coated by a rough adventitious membrane, and contained about three quarters of a pint of a dirty red and remarkably fœtid fluid, in which no perfect pus globule, or blood corpuscule could be detected by the aid of the microscope, but innumerable exceedingly minute animalcules were distinctly visible, moving, but not so vivaciously, as those discovered by M. Magendie in the serum of the blood after putrefaction has commenced, and which he describes as voraciously attacking and preying upon the blood corpuscles.

In the review of M. Magendie's lectures on the blood, in the *British and Foreign Medical Journal*, I observe the writer doubts the existence of these animalcules. I have frequently seen them, nor is there any difficulty in doing so. I am not, however, so satisfied that they devour the blood corpuscles; they keep them in perpetual motion, so as to give the appearance of spontaneous movement in the corpuscles themselves, especially when seen with a glass of insufficient power to bring the animalcules into view.

As intimately bearing upon two very interesting questions, mooted by Mr. Gulliver, viz., the probability of the pus globule being a modification of the blood corpuscle, and as to the effect produced by the attempt of the latter to pass through the capillary system, I shall conclude by observing, that the pus globule is of the same size in all animals, viz., averaging $\frac{1}{3000}$ of an inch in diameter. I speak from having seen it in the horse, dog, cat, mouse, goat; in the frog, salamander, toad, and snake; while it is well known that the size of the blood corpuscule, and, consequently, that of the capillary vessels, varies much in these animals. I give the measurement of the following, taken for the purpose, while making these few observations:—

In man I find the blood corpuscle measures $\frac{1}{3125}$ of an inch in diameter; in the goat exactly one half, viz., $\frac{1}{6250}$, while in the oval corpuscle of the toad, the long diameter is $\frac{1}{1817}$, the short diameter $\frac{1}{1250}$ of an inch.

I am, Sir, your obedient servant,

SAMUEL LANE.

THE LANCET.

London, Saturday, October 19, 1839.

WE have given, in another page, an abstract of Sir JAMES CLARK'S statement of the case of the Lady FLORA HASTINGS. The account of the *post mortem* appearances has already been published. The "Statement" is clear and candid, and none of the essential facts have been impugned. The discussions have turned chiefly upon the motives of the parties in the palace, and hot partisans have made this delicate history the handle of political warfare. But adventitious circumstances, imaginary motives, or political quarrels, have no connection with the medical bearings of the question; and we shall studiously avoid allusions to allegations, which may excite the passions, mislead the judgment, and foster envy, hatred, or malice, without promoting, in the slightest degree, either science or the public good.

Sir JAMES CLARK has described the symptoms of the case while Lady FLORA remained under his care. It is to be regretted that this leaves the medical history imperfect. Who attended Lady FLORA in Scotland? Why has no account of the previous attacks of peritonitis been published? And how does it happen that Dr. CHAMBERS and Dr. HOLLAND, under whose treatment the case terminated fatally, have neglected to complete its history? When the details of rare cases which may be confounded with pregnancy, are dragged before the public, it is exceedingly desirable that all the medical

facts which can throw light upon the diagnosis, or may prevent future suffering, should be recorded.

Little in the way of comment upon the facts can be added to what we stated in April last; and the death of the patient, the *post mortem* examination, and the statement of Sir JAMES CLARK, call for scarcely any modification of the opinions then advanced. Whether a lady at the age of thirty or thirty-five years is pregnant, is a question of "probability," which can only be answered satisfactorily by the collation of a great number of circumstances. Menstrual irregularity, and abdominal enlargement, without any very obvious derangement of the health, at that period of life, always demand the attention of the medical attendant. They may lead him to suspect pregnancy, but the discoloration of the areola, the external examination of the abdomen, the existence of perceptible movements of the stethoscopic sounds, and of the *ballottement*, can alone enable him to decide the question positively in the affirmative. The diagnosis, without the assistance of these data, is inevitably conjectural; and the sagacious physician, although he may entertain an opinion on the subject, never expresses it affirmatively, under doubtful circumstances. Sir J. CLARK is well aware of this. "Under "*almost any other circumstances*," he remarks, "it would have been highly improper for "me to have answered an inquiry on such a "subject." Unquestionably it would; and we must add that the *event* did not justify the deviation from the ordinary line of conduct pursued in similar cases. But Sir JAMES says that he was swayed by "the "very peculiar responsibility which attached "to him"—the physician of an unmarried QUEEN—and he held that it was his duty to confide the doubt which was in his own mind to those who had an official *right* (?) to demand his real opinion, and who, he felt assured, would not use it injuriously to Lady FLORA.

There is another point in the statement, to which we must call attention. Being unable to satisfy himself as to the nature of the enlargement (after examining the state of the abdomen over her dress), Sir JAMES expressed to Lady FLORA his uneasiness respecting her size, and requested that at his next visit, he might be permitted to lay his hand upon the abdomen, with her stays removed. "To this Lady FLORA declined to "accede." From that moment Sir JAMES CLARK should have ceased to be Lady FLORA HASTING'S physician. The disease was of an obscure and dangerous character, if she were not privately married, and if pregnancy did not exist. Every facility should have been afforded for the diagnosis; and the refusal of a lady, not young and inexperienced, but at the discreet age of thirty-three, to submit to a simple examination of the abdomen, was equivalent to an expression of want of confidence, to which no physician should have submitted. It was a species of knight-errantry in Sir J. CLARK to proceed a step further: he had nothing to do with the suspicions which had been awakened; he was not bound to wipe away the aspersions under which his patient laboured; and he met with the success of friends whose zeal is invariably misinterpreted in matters of such a delicate nature. Lady FLORA'S purity was under an accidental cloud. The medical examination annihilated the injurious imputations, and restored her at once, unsullied, to the circle in which she had moved; and the history of courts proves too clearly that character and honour can never be permanently re-established by any easier process; but Sir JAMES CLARK need not have become the medium of the suggestion that Lady FLORA was privately married, or that an examination was indispensable.

We have pointed out the errors into which Sir JAMES CLARK fell; and we might now add, that we do not, for a moment, believe the asseveration of the foreign maid, which Sir JAMES CLARK has contradicted, that the conduct of any of the parties present at the examination was abrupt, indelicate, or unfeeling. There is no proof that the Court Physician was accessary to an "atrocious

"conspiracy," and his enemies have not asserted that he was actuated by discreditable, or criminal, motives of any kind. His moral integrity remains unimpeached. This was not a railway flight from a friend dying of apoplexy, by the wayside, without medical advice. Sir JAMES CLARK displayed a want of tact, rather than a want of skill. The president of the College of Physicians is all tact, and nothing else. He is ignorant of the modern discoveries in pathology, and never employs the modern instruments of diagnosis; he has never written a line that is worthy of perusal upon any scientific subject; while the physician to the QUEEN has written standard works upon several practical questions; has directed attention to the means of preserving as well as restoring health; has promoted in a variety of ways, the progress of medical science; and has set a good example by refusing the Fellowship of the College of Physicians.

The College is of course not in mourning at the accident. Sir HENRY HALFORD, we understand, declares that he never *saw* a case of "enlarged stomach" at court; although imaginary cases of the kind had been pointed out to him, and rumours had prevailed, he could never *perceive* a single symptom which led him to suspect that "Maids of Honour" were privately married!

A PAMPHLET has just been forwarded to us, professing to be written by a Physician, and to contain a Dissection of the Court Doctor. It is a very low contemptible production; and we only notice it that the public might not imagine that it was written by a person acquainted with the first elements of medicine. We should pronounce the DISSECTOR, from internal evidence, a butcher or a *Post*-obit barrister; at any rate the medical profession must not be held responsible for the false statements, or the ignorant medical assertions; much less for the malignant, cowardly tone in which the QUEEN is assailed by this libellous hireling. In one paragraph he says, that no reparation was made to the victim during her life, "*save blubberings and tears*;" and that the "authors of this national degradation" (!)—the parties who believed that a Lady in Waiting was privately married—"are defended and caressed in high places "with *impudent obstinacy!*" Sir JAMES CLARK was "the medical fag;" the Baroness LEHZEN, Lady TAVISTOCK, and Lady PORTMAN, were "a *triumvirate of viperly women*!!" The writer of this trash is as little likely to be a physician as a gentleman; for the members of the medical profession regard their sovereign with very different feelings; and see, with disgust, the vindictive insults offered to her youth, purity, and womanly character; as from all the statements which have been published, it is evident that her Majesty's conduct was invariably marked by good sense, firmness, candour, and tenderness. The false M.D., insinuates "that "pregnancy may be denied in another case "where it may exist," or that "the throne of "England may be tenanted by a changling," and then calls the unfortunate Lady FLORA a "Martyred Sister"—asks his readers to "say whether the hand of a just GOD is not "visible, conducting this poor lady,"—declares that "volumes cannot speak her "panegyric," and does every thing, but insist that a Lady in Waiting, suspected for a week or a month of being privately married, and then declared faultless, in the eyes of the world, should be canonised by the people of England. We shall never revert to this wearisome, nauseating, three hundred times-told tale, or the *fishing* M.D., who "ventures to speak from his experience of human nature;" and "house maids in the third-rate streets "of London" (p. 11) may strike up a bargain with "the foreign maid," and sell holy pins, and pocket handkerchiefs, as relics, in the streets, when libellous pamphlets are no longer marketable commodities.

THE misrepresentations of a portion of the newspaper press, on the subject of the inquests held by Mr. WAKLEY in the county

of Middlesex, are continued with the greatest pertinacity. The falsehoods, however, are so clumsily constructed, that ultimately they can impose on only a few very simple persons. Unreflecting individuals, of all grades of society, may be misled by them for a time; but truth must, at last, prevail, and assert her sovereignty even with people of that description. The *Morning Herald*, daily paper, has been the chief lie-monger in this unseemly struggle for notoriety. With the exception of a report of an inquest at Ealing, which was published in the *Morning Herald* of October 7th, that journal has not, within the last fortnight or three weeks, inserted another report wherein the Coroner for this county has been allowed to defend himself against the paltry and wholly unfounded statements of his assailants. He has now determined on employing the columns of THE LANCET for his defence and vindication. Accordingly, with a view to place before his readers and the public, in as clear a light as possible, not only what has been his conduct in the discharge of the duties of his office, but also what is the nature, and what are the powers of the Coroner, in relation to many of the most important interests of the public, he will address to them a short series of letters in the columns of this journal. The profession ought to be reminded that, when general practitioners in medicine and surgery were required to dance daily and hourly attendance at Coroner's Inquests, and to endanger their lives by performing *post mortem* examinations, without fee or reward of any description, the *Morning Herald* had not one word to offer to relieve them from the unjust position in which they were then placed by the state of the law. Things are now changed, and medical practitioners are paid for their attendance as witnesses. They are, also, now remunerated for the performance of *post mortem* examinations. Hence, the *Morning Herald* has, all at once, discovered that such investigations constitute an "unnecessary mangling" of human bodies. The profession, in fact, should recollect that all the falsehoods on the subject have originated in the columns of that paper. It is their power to recollect this fact with some effect, as regards the future circulation and influence of any slanders or misrepresentations which it may attempt to palm upon the public.

WE are reluctantly compelled to record the following account of an infamous transaction, though we hope, by its publicity, to obtain some clue to the discovery of its author.

On the 7th of September last an advertisement appeared on the cover of THE LANCET, in which it was stated, "that a "house-surgeon and apothecary was wanted "for a country dispensary,—salary, £60. "Applications, with certificates and refe- "rences, to be addressed to Mr. THOMAS, "Lancet Office."

Induced by this advertisement (which the publisher received in the ordinary way of business) four gentlemen, Members of the College of Surgeons and Licentiates of Apothecaries' Hall, deposited their diplomas and testimonials at the office, with directions that they were to be given to the advertiser on his application. On the 14th of September, a person, who gave his name as Mr. THOMAS, called at the office, and asked for the certificates, showing to the publisher a letter, signed JOSEPH INGLEBY, New-street, Birmingham, as an authority for their delivery into his hands. We have since ascertained that the letter purporting to come from Mr. INGLEBY was a forgery. The whole transaction, in fact, appears to have been a scheme of some individual to obtain possession of diplomas from the College and Hall, for the purpose of representing himself as a qualified practitioner. We need scarcely say that all our efforts have been employed, but ineffectually, to discover any trace of Mr. THOMAS, or his associates. The aforesaid THOMAS is a young man of about twenty-one years of age, thin, and more than six feet in height; of fair complexion, and bad

delivery. He was dressed in black, and wore a camlet cloak.

This cold-blooded and infamous robbery has been the source of the greatest inconvenience to the gentlemen who are thus deprived of their certificates and testimonials. We trust that no pecuniary obstacle will be offered by the College of Surgeons, or by the Apothecaries' Hall, to the applications which may be made to them for fresh testimonials. As for Mr. THOMAS and his accomplices, we are still not without hope of their detection.

SIR JAMES CLARK'S STATEMENT
OF THE CASE OF THE
LATE LADY FLORA HASTINGS.

SIR JAMES CLARK has addressed to the public, through the medium of a political journal, a plain and temperate statement of the case of the late Lady Flora Hastings. Many of the facts connected with that case were of a very delicate nature; but the repeated and virulent attacks which were directed against the court physician, left to him no other choice than to explain to the public and the profession his share in the transaction.

Sir James Clark has been compelled, probably through a consideration of etiquette, to confine himself to a simple narrative of facts, from which he seldom deviates, even for the purpose of refuting his accusers. This was the most sage and satisfactory line that could have been pursued under the circumstances; for if Sir James Clark succeed in justifying his professional conduct, he can well afford to despise the venom of disappointed ambition, or the outpourings, however violent, of party spleen.

The following is an analysis of Sir James Clark's "statement," which we have endeavoured to divest, as much as possible, of all extraneous matter:—

On the 10th of January last, Sir James Clark was consulted, for the first time, by Lady Flora Hastings. She had derangement of the bowels and of the general health, and complained of pain low down in the left side. The lower part of the abdomen was also considerably enlarged. Under the use of very simple remedies her ladyship seemed to have recovered, no ailment remaining except some weakness.

The abdominal tumour, however, continued to progress, and the ladies of the palace naturally became alarmed. About the 1st of February, Lord Melbourne sent for Sir James Clark, and having mentioned the uneasiness which was occasioned in the palace by Lady Flora's appearance, asked Sir James Clark's opinion on the subject. The reply was obvious. Sir James Clark could not venture to give any opinion without ample means of observation. Here, then, the matter for a time rested. But Lady Flora Hastings' disease continued to progress in a manner which was certainly calculated to excite misgivings. The abdomen became gradually larger, without any apparent derangement of the general health. Sir James Clark requested to be permitted to make an *accurate* examination of the state of the abdomen, without which the nature of the disease could only be conjectured. Lady Flora Hastings refused to accede to this rational request. In this state, equally unsatisfactory, we should imagine, to the patient and to her medical attendant, things remained until the 16th of February, when Sir James Clark found that *it had been determined* that he should acquaint Lady Flora Hastings with the suspicions which existed in the palace, and should suggest a consultation on her case. This unpleasant mission was fulfilled by Sir James Clark with the utmost delicacy and respect; the matter was referred to Her Royal Highness the Duchess of Kent, and Sir Charles Mansfield Clarke was directed to meet Sir James Clark, in consultation on the case.

An accurate examination was now made by the two physicians, who forthwith delivered the following certificate:—

"Buckingham Palace, Feb. 17, 1839.

"We have examined, with great care, the state of Lady Flora Hastings, with a view to determine the existence or non-existence of pregnancy, and it is our opinion, although there is an enlargement of the stomach, that there are no grounds for suspicion that pregnancy does exist or ever did exist."

The complete innocence of the Lady Flora Hastings was thus established on the clearest evidence; but the real nature of her disease did not become evident until within a very few weeks of her death.

Our readers are now in possession of the principal facts connected with this unpleasant transaction, and can draw their own conclusions. One observation only shall we hazard here, it is one applicable to the practice of medicine, in every grade of society. Had Lady Flora Hastings permitted her physician to have made an *accurate* external examination of the abdomen, at an early stage of her complaint, she would probably have been spared the pain and humiliation to which she was subsequently exposed. Many a female has undermined health and compromised existence, through similar feelings of mistaken delicacy.

CLINICAL LECTURE

BY

SIR A. CARLISLE.

Delivered at the Westminster Hospital, on Oct. 9, 1839.

On going round the wards of the Westminster Hospital, on Saturday last, Sir A. Carlisle made an inflammatory address to the students, in reference to a report which had appeared in THE LANCET, headed, "Specimens of Clinical Instruction." The *accuracy* of the report was not denied; but the senior surgeon declared that it was an insult both to himself and to the students, that anything said by him in the wards of the hospital should be published! He had heard that a gentleman had been seen taking notes of what he said, and he, Sir A., then publicly declared, that the students had his full authority, should they observe a note-taker on any future occasion, to drive him from the hospital with "large sticks." He requested, however, that they would not do the "delinquent" *much* bodily harm; the students smiled, and the senior surgeon proceeded to "instruct" them at the bedside, in the following terms:—

GENTLEMEN:—A regular system of Clinical Instruction in this hospital does not appear to me to be at all advisable. I do not think it a good plan to give a lecture on another surgeon's case; and, as we have four surgeons at this institution, all, perhaps, taking different views of disease, perhaps you will be satisfied by my occasionally giving you clinical remarks, and in answering such questions at the bedside, as you may think proper to ask me. There are, however, some questions which it would not be advisable for the student to ask. Thus, for instance, if we were at the bedside of a patient who was in a very precarious state, if you were to say to me, "Do you think, Sir, that woman will die?" you would ask an obviously improper question. I have said that I think a course of clinical instruction is not advisable for the student to attend; there are, indeed, too many lectures for him to attend beside these, elsewhere, and it would only be wasting time to be constantly at clinical lectures. The College of Surgeons and the Company of Apothecaries, require the student to attend a great number of lectures; many of them may be necessary, but a great deal may be got from books, that now is required to be learned in the lecture-room. I regret that it is so, but the thing is as it is. The College of Surgeons have even, of late, made an increase in the number of lectures in their curriculum; but it was not my fault—I did all I could to prevent any changes in the system.

I again repeat, that the studies of the student are too multiform; he should, however, be well conversant with anatomy, and this should be studied systematically, and not in a desultory manner. I studied anatomy under two good schoolmasters, Baillie and Cruickshank; one a thorough practical man, the other, a scholar and a philosopher. I know that they taught anatomy systematically: they began by describing the blood in all its properties; they then went to the dry bones, demonstrated the number and names of their processes, the points to which particular muscles were attached; and this they did in a laborious manner. You may think so, when I tell you that I have attended two lectures, of two hours each, on the scapula alone! It is not well for you, however, to trust to an accurate knowledge of any particular part; the examination at the College is a very desultory one, and you will probably not get the part you know the best. Recollect, there are ten persons to examine you, and each of these may take you on a different subject; and, if you are deficient, you will suffer all the humiliation of a rejection, which, I hope, will occur to none of you; you may prevent it by studying your anatomy systematically. When my schoolmasters had described the bones, so far as I have already mentioned, they then demonstrated all the parts entering into the formation of joints, and all the points of attachment for the muscles. They described the bones of the head and face, and all the holes at the base and other parts of the cranium. All these are required to to be known accurately; and if you only know some parts, and not others, you will be liable to be rejected; for you see that that every examiner consults as to the fitness of the candidate for the diploma, and the copies of his examinations at the different tables are compared; so if you do well at one table, you may get rejected at another. The examiners, however, I can assure you, show no illiberal or uncharitable disposition; quite the contrary. In fact, there is a positive law on the subject. If a candidate is failing from great moral distress, he is allowed another examination; and it is not speaking disrespectfully of any person, to say, that the candidate who could not get on in his first examination, has succeeded to admiration in his second; proving that his incompetency was not owing to ignorance, but absence of self-possession. Whatever the examiners do, I can assure you, is owing to justice and feeling, and it is very painful for them to reject a candidate.

I shall now speak of what you should do in the hospital. Always be present at the admission of patients, and notice the questions put to them; for nothing betokens a man's knowledge so much as the apposite nature of his questions; silly, irrelevant questions show his ignorance. I recollect

in the old hospital, twenty or thirty years ago, that the students were quite ignorant as to the mode of putting questions; they were not taught it at Oxford or Cambridge. Now, therefore, attend the admission of patients.

Another thing I would recommend is, that you should, if possible, take part of the evidence for yourself. This you can generally do. You can, for instance, feel the patient's pulse; there is nothing offensive in that. I would recommend you to do so, particularly in inflammatory diseases; mark, also, what effect bleeding and purgation have on the pulse. These, I can assure you, are very important things. When I was a young man, we had various kinds of pulses; as, for instance, the full pulse, the soft pulse, the hard pulse, the quick pulse, and the frequent pulse. We made a difference, however, between the quick pulse and the frequent pulse; and this distinction, I believe, is still kept up.

You must then look at the complexion of the patient, inquire into his habits and avocations, all of which will have a great effect on the progress of the case, as well as throw considerable light on the causes of the maladies you witness.

When the patient is in the ward, attend to the treatment that is pursued. I think we have as many accidents in this hospital as they have in any of the same size in London. The house-surgeon told me we had as many as forty-seven in one week. You will have great advantages in this hospital, in seeing a variety of modes of treatment. I understand that, in University College Hospital, they apply lint dipped in water, instead of poultices and greasy unguents. Now, my experience proves that poultices and greasy applications are very often injurious to old sores. I have found the simple application of flour of very great service in ill-conditioned ulcers; there is no disgrace in using it, it is quite as good as a greasy unguent, with a fine sounding name.

I will go to another subject, that of scalds and burns; there is a great variety of methods of treating them; it is a pity that there is no definite mode of treatment laid down in books. One of the first remedies with us is oil of turpentine and linseed oil. Sometimes we apply a cerate, consisting of lard, vinegar, and chalk. There is, you must remember, however, a difference in the extent and nature of scalds; thus, if the scald was produced by boiling water, it would be only at the temperature of 212°; if from boiling oil, it would be 500°, and crisp up this pen if it were put into it.

In bad cases, however, that is when half the body is decorticated, or decuticulated, if you like, the presages or prognostics are bad; the patient invariably falls into a bad state, and—he dies. The symptoms preceding death from extensive burns are very curious, and one of these is sleep. This, if it be so profound that you cannot easily awake the patient, is the sleep of death. Yet in the worst cases, all that medicine and surgery can do should be done.

Let me advise you to learn how to do the minor operations of surgery, such as venesection, well. All people are able to judge of your ability in rolling a leg up in bandages for an ulcer or fracture, and I am glad to say that in this hospital we are most exemplary in regard to bandaging, and we are not surpassed by any hospital in London. The house-surgeons here seem to have handed the plan down from one to the other. Nothing is more important to the surgeon or the patient than the skilful application of a bandage; the patient can judge of it, but he cannot tell your depth in philosophy or metaphysics.

The success of a man often depends upon these little operations. I knew a case in which a man owed his rise to it; for you are not to suppose that you will get your practice all at once; you generally find it begins with one or two patients, and rises not from striving to do what others cannot do, but doing what you do, well. The idea of rising by doing what others cannot is a vagary, a mere delirium of youthful fancy, and fraught with much mischief. When I was a young man the politics of the French Revolution were all the fashion, and every man attempted to be a philosopher. Two or three fellow students of mine took up the cause, and were totally ruined, dying beggars somewhere, I do not know where. There is no such danger now from politics; there is not that enthusiasm there was when I was young.

We will now go back again to what you should do in the hospital. Watch the effect of medicines; when a man has taken a purgative, inquire what it was, and what were its effects. You saw the other day, when I was walking round the wards of the hospital, that I questioned a man who had taken hydriodate of potash. I thought the febrile derangement he suffered under arose from the medicine, and I ordered him to discontinue it. I am doubtful if, even in experienced hands, hydriodate of potash is not a dangerous medicine; it is, however, new, and I suppose, like other new things, it will have its day.

Therefore, note all the effects of medicines on the patients, and see what changes arise from them, whether for good or evil.

Now, in regard to bandaging and other operations, I should wish each of you to be dressers in turn. Do not trust to sight, but operate for yourself, and do a thing again and again till you are perfect. A man seldom does a thing well unless he has done it often. I shall endeavour to make some arrangement about the dresserships.

Gentlemen entering to this hospital have

the advantage of having four—no, three of the surgeons out of ten of the examiners of the college as their teachers; so that you see you will have three friends to protect your interests, that is, in a fair manner. We are not allowed to examine our own pupils, but we are there. I wish you all well through your examinations.

MEDICAL SOCIETY OF LONDON.

Monday, October 14th, 1839.

D. LEONARD STEWART, President.

TURPENTINE IN RETENTION OF URINE AFTER PARTURITION.

Mr. ROBARTS, in the absence of more important matter, informed the members that he had lately been employing the oil of turpentine with much effect in cases of retention of urine after parturition. In these cases generally, the daily use of the catheter was required, for a week or a fortnight; the administration of the oil of turpentine would, however, prevent the necessity of such a proceeding, after the first day. The plan he had adopted was simply the following:—When he found that the urine was retained on the day after delivery, he introduced the catheter, and drew it off; he then administered fifteen minims of oil of turpentine, mixed with a small quantity of copaiba and mucilage, every four hours, and the bladder afterwards performed its function properly. At first he had been afraid to give turpentine so early as the first day, but he had found it of so much service at a later period, that he was tempted to try it. He had never seen bad effects follow its employment. He considered that the retention of urine after parturition might be explained on the simple ground of the sphincter vesica becoming bruised during the passage of the child's head; that inflammation followed, and the function of the organ became suspended. This paralysis was removed by the stimulating properties of the turpentine.

Mr. HOOPER did not agree with this explanation. He believed that, in most cases, the obstruction to the urine was mechanical, and existed in the external meatus. Sitting over warm water would frequently be found sufficient to remove the impediment.

Mr. HEADLAND agreed that the inability to evacuate the urine arose frequently from that condition of the meatus urinarius which succeeded to the pressure which the child's head exerted upon the urethra, during the progress of parturition, and that the obstruction was a mechanical one. He did not see, admitting Mr. Robarts's explanation of the cause of retention of urine, was, in some cases correct, that the presence of inflammation contra-indicated the employment of turpentine. Of course, however, if the prostrate was diseased, or the bladder discharged mucus, such a stimulant as turpentine would be inadmissable. But recollecting how frequently turpentine was employed in puerperal peritonitis and other diseases called inflammatory, he did not see an objection to its use in a similar condition of the bladder.

Mr. PILCHER said that retention of urine after parturition did not depend on the cause which had been stated by Mr. Robarts, but arose from the contractile power of the bladder having been suspended by over-distension.

EFFECT OF ERGOT OF RYE ON THE CHILD.

Mr. Hutchinson and Mr. Hooper had never seen the ergot of rye produce any ill effects upon the infant. Dr. Severn thought that in some cases the death of the child could be attributed to no other cause.

After a few observations on scarlet fever, the society adjourned.

MEDICAL REFORM.

The following are the Extracts of Letters addressed to the Secretary of the British Medical Association, to which we alluded in our last number:—

From Professor MAUNSELL, *of Dublin.*

"I am just starting for Scotland, and I am sorry that it will not be in my power to be at your dinner on the 7th, as I should like to see all your reformers collected together. * * * * I look upon the subject of medical reform as one of the deepest interest to society, and I think there never was such an opportunity for effecting something in it. The Bishop of London's motion in the Lords, and Mr. Muskett's notices in the Commons, as well as the manner in which some of the newspapers have taken up the subject of public health, all show that *now* medical affairs might be forced upon public attention, and *that* once done, reform must be obtained."

From J. P. GLEN, *Esq., Secretary of the Glasgow Medical Association.*

"We rejoice to hear of the increasing prosperity of the British Medical Association, as upon the exertions of that body rest our hopes of achieving those changes in our profession, the urgent necessity of which has become so obvious to every one who is not blinded by interest. We feel that, zealous although such a body as our's may be in the cause of medical reform, yet isolated as we are, and placed at a distance from the seat of government, we could not hope to exert such an influence upon the legislature as would lead it even to consider, far less to adopt, our views. The existence of the British Medical Association is of happy omen to the cause of medical reform, and its prosperity

is intimately associated with the success of that cause.

"We had, further, great pleasure in observing, from the reports in THE LANCET, that you had entered into co-operation with a body of similar constitution to your own in Ireland, and with the Provincial Medical Association. Such an union among the profession argues most favourably for our cause, and cannot but be conducive to success in pressing the views entertained by medical reformers upon the attention of the legislature. You may reckon upon the cordial co-operation of the Glasgow Medical Association; you have pledged yourself for this, and be assured that the pledge will be redeemed."

From WM. WOOD, *Esq., of Edinburgh.*

"I have, for many years past, as you have been informed, taken a warm interest in the affairs of the medical profession, and have been most anxious to see such alterations made in its state, as would increase the respectability of its members, and promote the interests of the public. On two occasions I have been sent to London by our college, on the business of medical reform, and I was called upon by the same body to act as one of its representatives at the meetings of the joint committee of *our University, our Royal College of Physicians*, and *our own body. Our medical bodies here*, being well aware of the difficulty to be encountered in bringing about any *very great change*, in consequence of the difference in opinion in various medical incorporations having conflicting interests, have hitherto confined their attention to *three great points.*

"1st. The nature and extent of education of medical men;

"2nd. The nature and extent of examination to which candidates for licences to practice should be subjected; and

"3rd. The nature of the privileges which should be enjoyed by those who have obtained licences to practice. * * *

"I have thus endeavoured to explain the *intentions* of our three bodies in framing their conjoint resolutions, which we considered as fitted to form a general basis for legislation, for improving, to a great extent, the state of the profession, and benefitting the public. The body over which you preside, propose to go a great deal farther in their 'Outlines of Medical Reform' than we have at all contemplated. * * * I am of opinion that Dr. Barlow and Dr. Forbes, with the Provincial Association, are right in thinking that attention should be directed in the first place to *educational reform*, that the first great object, as they express it, 'should be to establish an adequate and uniform education of the whole profession, so that all who enter through it shall pass the same course of preliminary and medical instruction, to be tested by the same examinations, and, when approved, entitled to the same privileges.' So far we here agree with them, and in the grievances stated by them; but we are not prepared to apply for 'the establishment in each of the three divisions of the kingdom of one superintending body, * * * through whose examination, and by *whose licence alone*, shall admission to the profession be in future attained. * * * * * * * *

"I shall take an opportunity of laying your 'Outline of a Plan of Medical Reform' before the conjoint committee of our medical incorporations here, on an early day, together with any other documents that may be forwarded to me for consideration."

From Dr. BARLOW, *of Bath, Chairman of the Reform Committee of the Provincial Medical Association.*

"The subject of medical reform has engaged your attention, as well as mine, for many years. In point of time I am the older reformer, my earliest tract on the subject having been published so far back as 1807. From that period to the present the subject has never been absent from my thought, and it argues favourably for my earlier conceptions that the principles with which I started remain unaltered at the present day. These principles were the necessity of legal interposition to ensure competent qualification on the part of all who enter the profession, and, this effected, then exemption from collegiate restrictions, which have been so corruptly exercised and so mischievously abused. In many respects I can perceive a close correspondence between our views, though circumstances have impelled us into a somewhat different course of exertion. With free interchange of opinions, and mutual explanation of those held, my belief is that there are few points on which we could not agree. * * * The grand evil of the profession, which lies at the root of all others, is the diversity of modes and inequality of qualification through which admission to it is now attainable. So long as this evil is suffered to exist, no reform could avail, and to the correction of this was our petition limited. Were this point gained, every other requisite reform must necessarily follow. * * * * If the British Medical Association and Dublin Congress, will, in the first instance, only back the Provincial Association in their late petition, and limit themselves to this one claim, they will lend more real aid to reform than the most perfect scheme that human reason could devise, could at this moment give to it."

ST. THOMAS'S HOSPITAL.

OPERATIONS.

THERE have been three amputations this week, all performed by Mr. South. One on Tuesday, a circular operation above the knee, in a man who was suffering from ulceration of the cartilages of the knee-joint, and the usual concomitants. On Thursday, a flap operation on the forearm, on account of old standing disease of the carpus, &c. On Saturday, a flap operation above the knee, in a woman, also suffering from disease of the knee-joint. In this case, the use of the tourniquet was dispensed with; Mr. Green compressing the artery at the groin with his thumb. There was nothing particularly interesting in these cases, or differing from the general run of articular diseases, as they merely afforded more proofs of the inutility of treatment in advanced stages of diseases of the joints, the absolute necessity for the employment of early and energetic means, and the fatal evils resulting from neglect, or delay in their application.

On Thursday, Mr. South trephined the tibia, with the view of letting out matter which was supposed to have formed in the bone. The man had suffered from necrosis 16 years ago, and exfoliations continued to trouble him for three years. Since that time he has only had what appeared like a large node on the tibia, which gave him no great inconvenience, except from the deformity it occasioned, till about six weeks ago, when, after exposure to cold, sudden excruciating pain came on, without shivering or noctural exacerbations, and with very slight remissions. Little was done for him, with the exception of poulticing, till Thursday, when the bone was trephined, after making a crucial incision through the integuments, and dissecting them back a little. This operation gave the poor fellow great pain, but nearly an ounce of thick pus escaped, and he has since been quite relieved from his suffering, and is going on very well.

On Saturday, Oct. 12, Mr. South gave the first clinical lecture for the session, at St. Thomas's Hospital. It was not what is generally understood by a clinical lecture, namely, remarks on some cases under observation, but the first of a few demonstrations which he purposes giving occasionally, on the minor operations of surgery. After some preliminary remarks on the importance of the study of these matters, compared to the usual practice of running after flashy operations, the various evils produced by improper, careless, or unskilful application of bandages and splints, the inconvenience and suffering to the patient, and loss to the practitioner, caused by the neglect with which these subjects are treated, he proceeded to apply and explain the various uses of different bandages. A man was brought into the theatre, on whom he applied the circular and spinal rollers, reversed; triangular bandages; the bandage for the groin; the four-tailed bandage for fracture of the jaw; the six-tailed, to retain dressings, &c., on the head; the knotted bandage to effect pressure on any particular part, and the reflected bandage of Hippocrates. It would be impossible to give a useful account of these demonstrations, without a series of wood-cuts. Mr. S. stated that he should take occasional opportunities of exhibiting the various modes recommended for putting up every fracture. His example should be followed by other hospital surgeons.

DAGUERREOTYPE.

On Saturday, Mr. Leeson engaged M. St. Croix, a pupil of M. Daguerre, to exhibit to his class the process of drawing lately introduced in France, for which M. Daguerre received a reward from the French government. It was in order to illustrate some parts of Mr. Leeson's lecture on the chemical effects of light. M. St. Croix was accompanied by an interpreter, from whose statements, and the proceedings of his instructor, we found that sheets of copper, plated with silver, are imported from France; these are rubbed over with finely powdered pumice-stone and olive oil, till the surface is perfectly smooth and polished. The grease is removed with the softest cotton, and the plate then washed with a solution of nitric acid in 16 parts of distilled water. The plate is then placed on a stand, with a spirit lamp under it; a film appears on its surface, from the action of the nitric acid, which film is removed when the plate has cooled. It is then exposed, in a closed box, to the vapour of iodine. When the surface has acquired a golden colour from the action of the iodine vapour, it is fit to receive the impressions from the camera obscura. This process being completed, the gentleman adjourned to the roof of the hospital, and, the right focus having been found, by observing the church of St. Saviour depicted on the object-glass of the camera, the ground glass was removed, and a case, containing the prepared plate, substituted for it. The case is contrived to open, so that the plate, which has never been exposed to light since the action of iodine on it, receives the rays from the object to be depicted. It is left for about ten minutes, then removed and exposed to the vapours of mercury, heated from 45 to 75 degrees centigrade, for about the same period; the process is then completed by washing the plate in a hot solution of hyposulphite of soda in distilled water; and, on examination, a most perfect view was seen of the church, the new portion of the hospital, &c.

As to the theory of the process: iodide of silver is formed by the action of the iodine vapour on the silver, which had previously been acted on by the diluted nitric acid. The rays of light reflected from white objects are supposed to produce minute cracks in the iodide of silver, and thus to enable the mercury to penetrate the surface and form an union with the iodine. The reflection of light from white objects, and its absorption by dark ones, account for the impression of different objects on the plate when in the camera. It appears singular that when it is removed from the camera, nothing can be discerned on it, even by the aid of the microscope; and it is not till the mercurial vapour has acted on it, that the objects become visible. The use of the hyposulphite of soda is to dissolve and remove the iodide of silver, which had remained unacted on by the light and mercury. Thus the picture is formed by the iodide of mercury, on a ground of silver.

The principal advantages to be expected from a perfection of this process are, the rapidity and exactness with which drawings are made, and their great durability. Whether, as some suppose, likenesses can be thus taken, is a point still *sub judice*.

GUY'S HOSPITAL SOCIETIES.

On Saturday, Oct. 5, the Clinical Report Society held their first meeting for the session; Dr. Ashwell in the chair. After a complimentary address from the chairman, the report was read by Mr. Otway, the secretary, the only fact of interest being that more cases had been reported during the last than in any former six months. Various votes of thanks were proposed and responded to; the only occurrence worth notice being that Dr. Addison took fire at a gentleman who had dared to say that the society originated in the fertile intellect of Dr. Hodgkin. Dr. Addison denied this, and claimed the honour for Mr. Blackburn, a student.

On the same evening the first meeting of the Pupils' Physical Society was held. Mr. E. Cock occupied the chair, and gave a sensible introductory address. A paper on varicose veins was read by Mr. Birkett, who described a mode of treatment which he had seen practised in six cases, by M. Velpeau, in Paris. The plan is to pass pins through the skin beneath the vein, and then by twisting thread round them, and including the skin very forcibly, to produce such inflammatory thickening of the parts around the vein as shall lead to its obliteration. It appears, however, that very troublesome ulcers are thus produced, and though M. Velpeau vaunts the practice, yet we gathered from the discussion that his *chef de clinique* was opposed to it, and would never practice it on his own account. Various modes of treatment were discussed, but most of the speakers appeared to agree with Mr. Cock, that it was very seldom such operations, attended as they are with some danger, should be performed, especially as the increased quantity of blood to be returned by the other veins of the part, would probably induce in them a varicose state. A gentleman present mentioned that a French surgeon was in the habit of puncturing the veins with heated needles, thereby causing coagulation of the blood, and obliteration of the vessel, he believed, with success. No one else, however, appeared to have heard of the operation.

ST. BARTHOLOMEW'S HOSPITAL.

On Saturday, Oct. 12, Mr. Stanley removed the hand of a woman, by amputating about three inches above the wrist joint. The operation was performed in a neat manner.

The history of the case is shortly this:—About two years since, swelling commenced in the palmar surface of the hand, and extended to the forearm, accompanied by stiffness and pain. During the last eight months, she has been in the hospital, and small collections of matter have been repeatedly evacuated by puncture. Mr. Stanley thought the disease originated in the thecæ of the tendons, and in the bursæ about the carpus; but, all the treatment adopted proving inefficacious, and as the patient's health was suffering from the irritative fever set up by the disease and the confinement to the hospital, the operation became a matter not only of expediency, but of necessity. On making an examination of the affected parts, after amputation, the flexor tendons were found all matted together, their thecæ obliterated, and the cellular tissue around greatly indurated. The synovial membrane of the carpal joint was thickened to six or seven times its natural size, and its internal surface was very rough and granulated. The articular cartilage on the extremity of the radius and opposed carpal bones, was absorbed, and new bone formed on the radius.* The disease had also extended into the articulations between the carpal and metacarpal bones, and the metacarpal bones with each other. Mr. Stanley remarked, that this was owing to one synovial membrane being common to these articulations; and, therefore, it was a very rare circumstance to find circumscribed disease of that joint. From the extent of the disease, he felt quite satisfied that the

* One of the carpal bones was loose in the joint, and its shape so much altered by absorption, that it could not be recognised.

operation was called for, anchylosis being the only cure for such cases, and that could not be expected in a feeble woman of sixty-five.

On Monday, Oct, 14, Mr. Stanley exhibited to the pupils the tibia of a boy, aged about 15, whose leg he had recently removed. After a slight injury of the ancle-joint, by a sprain, great swelling of the leg had come on very rapidly, and, in a few days, much matter was evacuated from near the ancle, and afterwards from the knee, by puncture. These profuse suppurations and the pain, produced such severe constitutional symptoms, that amputation became unavoidable. From the great severity of the symptoms, local and general, Mr. Stanley believed the disease originated in the medullary membrane, or in the bony tissue itself; most likely the former. On making a section of the tibia, the periosteum, for about two-thirds of its extent, was found separated from the bone, thickened, indurated, and adhering to the surrounding muscles, cellular tissue, &c.; its internal surface being intensely red and villous in appearance, presenting a most perfect specimen of the effects of highly acute inflammation on that membrane. The matter had been contained between the denuded bone and the periosteum. The medullary membrane was highly inflamed, and coated with pus and lymph; which Mr. Stanley said he had only seen twice before to so great an extent. The disease had also extended to the knee and ancle joints, we suppose, in the phrase of Hunter, by "sympathy of contiguity." The boy has been suffering from bad sores on the sacrum, for which he has been placed on a water-bed, and is, otherwise, going on well.

UNIVERSITY COLLEGE HOSPITAL.

DISLOCATION OF THE TARSAL BONES.

A bricklayer's boy, aged 14, fell down a height of forty feet, and apparently struck the extremity of the foot. The ligaments on the dorsal surface of the foot appear to have started, and the scaphoid and cuboid bones project a little upwards out of their places. The foot is much swelled; is about half an inch shorter than the other, and has a clubbed appearance.—To apply a spirituous solution of the arnica montanum to the part, and keep the foot elevated.

Sept. 17. Improving. No difference in the length of the foot. The deformity still exists. No attempts have been made at reduction.

Sept. 24. Discharged. The foot was bandaged, and he was able to bear some weight upon it. To show himself occasionally. There is still some swelling; the instep appeared high, and the foot shortened about half an inch.

WESTMINSTER HOSPITAL.

CASES OF STRANGULATED FEMORAL HERNIA REQUIRING OPERATION.

Catherine Squires, aged 89, was admitted at five o'clock in the evening of the 21st of May, with symptoms of strangulated femoral hernia of the left side. She had, until the last seven years, followed her usual occupation of a washerwoman, had been the mother of five children, and usually enjoyed good health. She had been subject to hernia for twelve years, and had always been able to reduce it herself. She had never worn a truss.

At the time of admission the symptoms, which had been gradually increasing in severity for the six previous days, were as follows:—She had constant nausea, vomiting, and hiccup. The countenance was anxious; the bowels confined; the breathing rather hurried; pulse full and bounding; great pain in the region of the left groin. As the patient was not relieved by a warm bath, and other means which were resorted to, it was determined, on a consultation between Messrs. White and Hale Thomson, that operative means should be resorted to. Mr. Thomson accordingly, at six o'clock, proceeded to operate. On opening the sac the hernia was discovered to consist of a small knuckle of intestine and a large quantity of omentum; the latter was found to have formed extensive adhesions, and accordingly was allowed to remain. The stricture was divided, and the knuckle of intestine pushed into the abdomen. The edges of the wound were brought together by three sutures, and a piece of lint, moistened with cold water, applied over the parts.

May 22. The vomiting and other symptoms ceased soon after the operation. The patient slept several hours during the night; the bowels have been moved several times.

3, P.M. She complains of very great pain in the groin.—To have two grains of calomel and a quarter of a grain of opium, every three hours. She continued the pills until 12, P.M., when they were taken less frequently, two doses more only being given. No erysipelas; pulse intermitting ten times in the minute.

23. Pulse 96, soft, full, and intermitting four times in the minute. Slept well during the night; bowels relieved twice; countenance composed; there is some fever; no pain in the abdomen.

The after history of the case offered nothing worthy of record. She had occasionally pains in the groin, which were relieved by calomel and opium, and diarrhœa, which was controlled by the compound powder of chalk, with opium, and she left the hospital cured on the 24th of July.

Case 2.—In this case the patient was a woman 59 years of age, who was admitted on the 6th of July. She had been ill for five days previously, and the bowels had been obstinately constipated during the last three days. She now vomited stercoraceous matter, and complained of great pain and uneasiness in the tumour. The warm bath, enemata, and other means failing, an operation was determined upon and carried into effect by Mr. Hale Thomson. The hernia proved to be omental, and was only partially reducible, in consequence of the existence of old adhesions around the sac. The woman went on well, and was discharged on the 25th quite well.

Case 3.—Mary Bull, aged 50, a charwoman, was admitted on the 27th of September. She is married and has two children. Has generally enjoyed tolerable health. A femoral hernia appeared five years since, without any appreciable cause. It was esily reducible, and was controlled by a truss, so that she was able to pursue her occupation without much inconvenience. On Friday, the 27th, as she was going up stairs, she felt a sudden pain in the hernia which had protruded, and she became sick. She could not reduce the hernia as usual. The sickness soon went off, and she proceeded with her usual occupation; the vomiting, however, returned more severely in the evening, and she sent for a medical man. Various means attempted for the reduction of the hernia having failed, she was ordered a composing draught, which produced a sleep of two hours. At the expiration of this time vomiting again occurred and continued up to the time of her admission at 12 merid.

The taxis, an enema, and a warm bath having failed to afford relief, Mr. White considered that it would be advisable to operate, although the symptoms were not of that urgent character which usually characterise strangulated hernia.

At three o'clock Mr. Hale Thomson proceeded to operate, and having laid open the sac, its contents were found to consist of a dark portion of small intestine, a small piece of recently protruded omentum, and a large mass of omentum which had become adherent to the wall of the sac, and had evidently formed the original hernial tumour. The reduction of the small intestine and the portion of recently protruded omentum was attended with some difficulty, owing partly to the rigidity of the structure, and partly to the diseased state of the intestine. The edges of the wound were brought together by two sutures, a compress and roller applied, and the patient put to bed. She suffered no pain after the operation, and slept well for several hours. An injection of water gruel acted twice.

28. She slept at intervals during the whole night. Skin dry; pulse soft and intermittent; tongue brown and furred.

29. The bowels have not been moved since the day before yesterday. A drachm of Epsom salts, in an ounce of peppermint water, was ordered to be taken every hour, and an injection of gruel and castor oil was administered. The injection brought away a large quantity of fœculent matter, and the mixture, having operated freely, was ordered to be discontinued. Sickness again recurred in the evening, and hydrocyanic acid with spirits of sulphuric ether, and camphor mixture, were ordered, with the effect of affording considerable relief. She continued throughout the day to be affected at intervals with vomiting; the hydrocyanic acid was given in a saline effervescing draught. Symptoms of an alarming character set in during the night; the sickness was almost constant, the pulse intermitting, and great pain was experienced in the region of the stomach, to which twenty-four leeches were applied. She gradually sunk and died at 5, P.M.

The portion of intestine which had been strangulated was found to be quite disorganised. There were marks of severe enteritis. The stomach was very extensively inflamed. Lymph was effused betwixt the peritoneum and intestines.

In lecturing upon these, cases Mr. Thomson pointed out to the students the great necessity which existed for the employment of a truss in every case of hernia. It was remarkable how many persons neglected to apply this simple and easy means of insuring their safety. The first case proved that advanced age did not offer entire security against the occurrence of strangulation in a hernia, when the use of a truss was neglected. With respect to the third patient, it afforded an example of the fatal termination of an apparently favourable case, and one in which the symptoms were not alarmingly urgent. Experience had proved that operations for femoral hernia, though apparently so simple, were by no means universally successful, and had the last case alluded to occurred in the private practice of a young surgeon, it might probably have injured his reputation. It showed, however, the great necessity of a careful prognosis.

Mr. Thomson then made some general observations on the treatment of the disease under consideration, and finished by alluding to the several plans of relieving strangulated hernia without a cutting operation, which had been recommended and practised by Dr. O'Beirne, Dr. Busach, and others.

FORMATION OF AN ARTIFICIAL ANUS.

By M. Amussat.

In The Lancet of the 13th of July, 1839, p. 591, we reported a case in which M. Amussat had succeeded in establishing an artificial anus in the lumbar region of a lady affected with obstinate constipation. The same enterprising surgeon has more recently attempted a similar operation with nearly equal success.

M. T., 62 years of age, was affected with piles and constipation for several years. On examination of the rectum, it was discovered that a carcinomatous ulceration occupied the gut, about two and a half inches above the spincter, nearly obliterating the cavity, and extending upwards for an inch and three quarters. This state of the intestine was recognised by several medical men in consultation, and the means of alleviation were discussed. Dilitation and the ligature were rejected. Excision of the carcinomatous ring was also rejected, as any hæmorrhage might prove fatal to the patient, who was already reduced to the lowest state. After much deliberation, it was proposed to break up (broyer) the tumour, and this operation was performed by M. Amussat, on the 30th of May last, with a long pair of forceps, by which the most prominent granulations were crushed and removed. But little blood was lost, and the patient experienced hardly any pain. A current of cold water was now thrown into the rectum, to prevent, if possible, the development of inflammation; and, after a lapse of eight days, it was decided to cauterise the parts. Accordingly, M. Amussat applied the caustic potass at seven different times, by means of the speculum, an interval of three or four days being allowed to intervene between each application. No signs of inflammation about the bladder or peritoneum were thus produced, and the cancerous tumour was reduced to nearly one-half of its original volume. The patient's state, however, became gradually worse. An evacuation of the bowels took place only once every ten or twelve days, and was attended, each time, with a prostration of strength, often terminating in fainting fits. The skin covering the sacrum was on the point of ulcerating.

Under these discouraging circumstances, another consultation was held on the 13th of July, when it was unanimously determined to give the patient the chance of an operation for artificial anus. M. Amussat made an incision of four inches and a half in length, along the middle of the space comprised between the last false rib and the crista ilei, beginning at a distance of about four inches from the spinous processes of the vertebræ. The rest of the operation was completed in the manner which we have already described. At the anterior angle of the wound, a membranous projection, formed by the peritoneum, presented itself, and beneath this seemed to lie the small intestines.

The sigmoid flexure of the colon was firmly contracted, and nearly covered by the quadratus lumborum muscle, the fibres of which were divided transversely. The intestine was now seized, with the necessary precautions, and the posterior half of the circumference divided. Some gas and scybalæ escaped. The colon was then drawn to the anterior edge of the wound, and fixed there by four points of suture. Three other stitches were applied to the edges of the wound, care being taken to leave the portion which corresponded with the gut perfectly free. The operation was not productive of any general accidents, but the opening did not immediately give passage to the fœcal matter, until the 18th of July, when an abundant evacuation took place through it. The opening was now gradually dilated by means of prepared sponge and bougies.

Since then the passage of fœces through the artificial anus has been considerably facilitated. The patient's general health has also so much improved, that he was able to return to the country; the hectic fever had disappeared, and a regular evacuation took place every day. On the 18th of August he was examined by M. Amussat and several other surgeons, who found that the disease of the rectum had not made any progress since the operation; and on the 22nd of September, M. Amussat had a letter from the patient, announcing that he was able to walk about every day for an hour and and a half, without any inconvenience.—*French Medical Gazette and Lancet.*

EXTIRPATION OF A PART OF A RIB FOR NEURALGIA.

By E. H. Dixon.

Oct. 16, 1838. Jane Bailey, aged thirty, two years ago was overturned in a carriage, and dragged something like a mile, receiving various contusions, and being taken out insensible. No lasting injury was the result, with the exception of a severe pain over the tenth rib of the left side, for which she received no treatment at the time, saving the customary bleeding practised on such occasions. A few weeks after the injury the affected spot became the seat of a small irregular projection, and of exquisite and constant pain. This pain I conceive to have been neuralgic, as it was occasionally of

equal violence for weeks together, and not accompanied with other signs of inflammation. It would subside partially for a few hours, and then recommence with such severity that the patient assured me death was anticipated as a relief to her misery. She had some little cough, with no expectoration; the cough I concluded to be the result of irritation and constant loss of sleep, as I could detect no signs of pulmonary disease. The pain extended forwards and upwards (from the projection which seemed to be near the sternal extremity of the rib) over the stomach; upon turning her head and shoulders to the opposite side, so as to throw out the ribs, the projection was evidently caused by the end of the rib, as though the cartilage had been broken off. I at first thought it a fracture, with a redundant growth of bone, but upon further examination concluded the rib to be natural, though I could not account for its projection, without supposing a fracture to have occurred between the prominence and the vertebral articulation, thus destroying the natural curvature of the rib, opposing the action of the intercostal muscles, and favouring the absence of the cartilage; all this would sufficiently account for the projection. During the two years preceding the operation, the patient had been repeatedly cupped over the affected region, with momentary relief; part of this time was spent in the New York Hospital. Her pain over the stomach being very acute, she had been treated whilst there for organic affection of that viscus. This, however, it seemed rational to explain upon the principle of pain being continued from the irritated nerve to its distribution; the anterior branch of the intercostal nerve going to the muscles and integument over the stomach. It was evident that counter-irritation, however severe, would produce no benefit in such a case, and as the extirpation of part of the nerve itself was impossible, without the certainty of opening the cavity of the pleura, I resolved to remove the projecting portion of the rib, hoping that when the tension was removed the pain would cease.

Accordingly I removed about two inches of the rib, by means of a very cautious dissection, leaving the cavity of the pleura unopened; the cartilage was not attached, being most probably absorbed. There was nothing either peculiar or difficult in the operation; not a bad symptom ensued; the wound healed by adhesion in a week; the pain was removed instantly, and has not returned. The patient was examined by Dr. John Watson on the 15th of May, to whom she stated that she had gained twenty-three pounds of flesh, a sufficient evidence that a severely irritating cause had been removed. —*New York Quarterly Journal*, No. 1.

COMPARATIVE OSTEOLOGY.

In the next number of The Lancet we shall commence the publication of Professor De Blainville's Lectures on Comparative Osteology, edited from the French, and additionally illustrated by Dr. Knox, as announced in the first number of our present volume.

BOOKS RECEIVED.

Londres, Ancien et Moderne, ou Recherches sur l'état phisique et social de cette métropole. Par A. M. Bureaud Rioffrey, M.D.P., (Scribo in aere Britanno). Paris and London, Bailliere, 1839. Pp. 138.

A Lecture on Innoculation, Vaccination, and Re-vaccination; delivered at St. Thomas's Hospital, by Dr. Cape, Phys. to the Inf. for Children. Pp. 7.

Introductory Lecture to a Course on Medicine; delivered at the North London School, by Michael Ryan, M.D., Oct. 1, 1839. Pp. 12.

Illustrations of Midwifery, a complete Atlas and Companion to all Obstetric Works, by Michael Ryan, M.D. London, Bailliere, 1839. Part I., pp. 32, plates.

TO CORRESPONDENTS.

Communications have been received from *Dr. Robert Knox*, *Dr. Martin Lynch*, *Mr. Lane*, *Mr. Wansbrough*, *Mr. Rugg*, *Mr. Dermot*, *Speculum*, *Pater*, and *Z.*

The communication from *Mr. Coley* shall receive attention.

A Subscriber. We never employ ourselves, nor do we give any opinion on patent medicines. The preparation to which our correspondent alludes, may be a good one, or it may not. The only one of the kind which we have tried is "the fluid extract" prepared by Mr. Bridge, of Regent-street, with the good effects of which we have had every reason to be satisfied. This is not a patent medicine.

A Medical Student should authenticate the curious case which he has forwarded.

The letter of *A Junior Practitioner* next week.

A General Practitioner does not seem to be aware that, in the British Medical Association, Exeter Hall, Strand, he may find precisely such an institution as he desires to join. He should become a useful working member, forthwith.